



# Community Health Assessment

Frederick County Health Department Frederick County, Maryland

January 2014

#### **ACKNOWLEDGEMENTS**

The Frederick County Health Department would like to thank its staff members for their contributions to this report and to the projects and interventions that are described herein.

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#### **Electronic Access:**

This report can be accessed electronically at <a href="http://www.frederickcountymd.gov/lhip">http://www.frederickcountymd.gov/lhip</a>.

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#### **Project Overview**

This Community Health Assessment (CHA) is a systematic, data-driven approach to determining the health status, behaviors and needs of community residents. It is intended to be used as a reference for interested community individuals and organizations to determine health priorities and the current status of health in Frederick County.

The study area for this effort is defined as Frederick County, Maryland.

## Methodology

All data was gathered prior to December 31, 2013. The analysis of community health status described in this report is derived from the following sources:

- 2000-2010 Monitoring Changing Tobacco Use Behaviors Legislative Report
- Annie E. Casey Foundation
- Annie E. Casey Kids Count Data Center
- · Centers for Disease Control and Prevention (CDC), National Center for Health Statistics
- Centers for Disease Control and Prevention (CDC), Atlas of Heart Disease and Stroke
- County Health Rankings
- Decennial Census Totals and Intercensal Estimates of the Resident Population for Jurisdictions in Maryland: April 1, 2000 to April 1, 2010
- Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012
- March of Dimes
- Maryland Behavioral Risk Factor Surveillance System (BRFSS)
- Maryland Cancer Report
- Maryland Department of Health and Mental Hygiene
- Maryland Department of Health and Mental Hygiene Center for Immunization
- Maryland Department of Health and Mental Hygiene Vital Statistics Annual Reports
- Maryland Department of the Environment (MDE), Annual Report
- Maryland Health Services Cost Review Commission (HSCRC)
- Maryland Medicaid
- Maryland State Department of Education (MSDE)
- Maryland State Police
- Maryland Vital Statistics
- Maryland Youth Tobacco Survey
- Matchstat.org
- Metropolitan Washington Council of Governments, Maryland Point in Time Analysis, 2013
- The Dartmouth Atlas of Healthcare
- U.S. Census 2000 and 2010
- U.S. Census, America Fact Finder
- U.S. Census, Quick Facts
- U.S. Census, Small Area Health Insurance Estimates

Due to changes in the Behavioral Risk Factor Surveillance System (BRFSS) weighting methodology, trend data is presented up to 2010 and is not compared to 2011 data.

Benchmarks and goals were selected for indicators as available from the following sources:

- Healthy People 2020. This initiative is sponsored by the U. S. Department of Health & Human Services and outlines a comprehensive, nationwide health promotion and disease prevention agenda. It is designed to serve as a roadmap for improving the health of all people in the United States during the first decade of the 21st centuryhttp://www.healthypeople.gov/
- Maryland State Health Improvement Plan (SHIP <a href="http://dhmh.maryland.gov">http://dhmh.maryland.gov</a>
- Note: When indicators included in this report did not match up directly to HP 2020 or MD SHIP goals, the indicators were still included but a direct comparison to the goals was not made.

#### Other Needs Assessments

**2007 PRC Community Health Assessment** - The predecessor to this 2014 Community Health Assessment was the 2007 PRC Community Health Assessment, a product funded by the Frederick County Board of Commissioners and developed collaboratively with the Frederick County Health Care Coalition and Frederick Memorial Hospital (FMH).

Frederick Memorial Hospital's 2013 Community Health Needs Assessment - New Internal Revenue Service (IRS) regulations for non-profit hospitals required FMH to have a completed community health assessment by the end of June 2013. Unfortunately the IRS compliance timeline did not allow us to prepare one comprehensive document for Frederick County. The recent focus groups convened represent the shared interests of FMH, the Frederick County Health Department and the Frederick County Health Care Coalition. The Focus Group Summary can be found in FMH's 2013 Community Health Needs Assessment in Appendix A on pages 73-74. Any indicators discussed in FMH's 2013 Community Health Needs Assessment that were not included in this 2014 Community Health Assessment are noted within the topic areas most closely aligned with those indicators.

**2013** Needs Assessment of the Aging Population - The <u>2013</u> Needs Assessment of the Aging Population in Frederick County Commissioned by the Frederick County Department of Aging contained several health and social determinants of health related questions.

Local Management Board Community Wide Needs Assessment - The Local Management Board conducts a needs assessment every 3 years with the most recent needs assessment expected to be published in the spring of 2014. The 2010 Frederick County Local Management Board Community Wide Needs

Assessment addresses strengths, gaps and opportunities in the human service system for children and families. It includes some indicators of health and social determinants of health, most of which have been updated in this 2014 Community Health Assessment.

**Frederick County Human Needs Assessment Report, August 2011** – The Community Foundation of Frederick County's <u>Frederick County Human Needs Assessment, August 2011</u> covers all areas of human services within Frederick County but pays particular attention to the Community Foundation's core priority areas: health, youth, and basic human needs.

It is the collective hope of many that future updates to the above community health assessments can be accomplished through a collaborative effort to reduce the duplication of effort and to reduce the number of documents that persons looking for information about the health status of Frederick County will have to review.

#### **COUNTY DEMOGRAPHICS**

Frederick County, Maryland is located an hour west of Baltimore, MD and less than an hour north of Washington, DC. Residents are spread over 664 square miles of land, making Frederick the largest county by area in Maryland. Frederick Memorial Hospital is the sole acute care hospital in the county.

The 2010 population of Frederick County was 233,385, which was approximately 4% of the population of the state of Maryland. The following table shows the population of Frederick County from the 2010 U. S. Census.

#### Frederick County 2010 - At a Glance

		# of people	% of population
T	otal Population	233,385	100%
G	ender		
	Females	118,579	50.8%
	Males	114,806	49.2%
R	ace		
	White	190,306	81.5%
	Black	20,148	8.6%
	American Indian/Alaska Native	730	0.3%
	Asian	8,946	3.8%
	Native Hawaiian/Pacific Islander	107	0.0%
	Other Race	6,684	2.9%
	Two or more races	6,464	2.8%
Et	thnicity		
	Not Hispanic or Latino	216,250	92.7%
	Hispanic or Latino	17,135	7.3%

Source: U. S. Census 2010

The Frederick County population grew 19.5% from 2000 to 2010, and an additional estimated 2.7% from 2010 to 2012. While the majority of the population in the county is white (81.5% in 2010), the greatest population change in the last decade can be seen in the increase in minority populations. The following figure shows the changes in the population from 2000 to 2010.

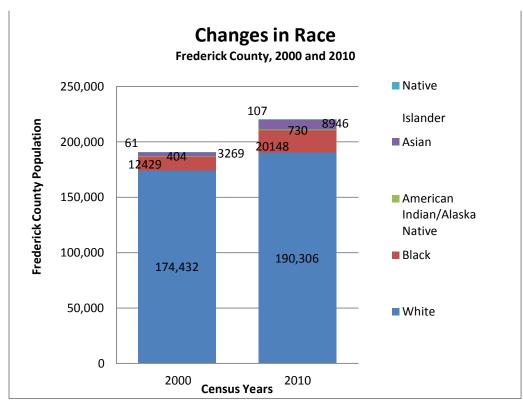
Changes in Frederick County Race and Ethnicity 2000 to 2010

		# Change	% Change
R	ace		
	White	15,874	9.1%
	Black	7,719	62.1%
	American Indian/Alaska Native	326	80.7%
	Asian	5,677	173.7%
	Native Hawaiian/Pacific Islander	46	75.4%
	Other Race	4,878	270.1%
	Two or more races	3,588	124.8%
Et	thnicity		
	Not Hispanic or Latino	25,637	13.5%
	Hispanic or Latino	12,471	267.4%

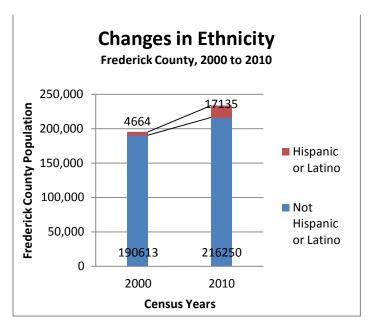
Source: U. S. Census 2000 and 2010

The Asian population increased 173.7% from 2000 to 2010, almost tripling from 3,269 to 8,946, and the Hispanic population increased 267.4% from 4,664 in 2000 to 17,135 in 2010.

These changes in minority populations can be clearly seen in a side-by-side comparison of the racial demographics of Frederick County in 2000 and 2010.

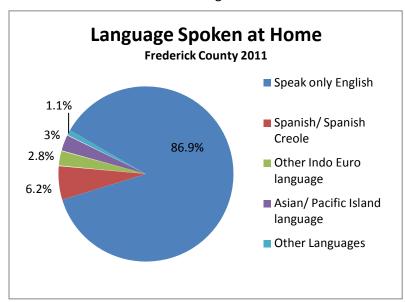


Source: US Census Bureau



Source: US Census Bureau

English is the predominant language spoken in homes in Frederick County with 86.9% of households reporting it as their only spoken language in 2011. Spanish or Spanish/Creole is the second largest language group spoken in Frederick County homes at 6.2%. Other Indo-European languages are spoken in 2.8% of homes, and Asian/Pacific Island languages in 3%. The remaining 1.1% of Frederick County homes report speaking other languages. The variety of languages spoken in the county needs to be taken into account when addressing health needs.



Source: US Census Bureau

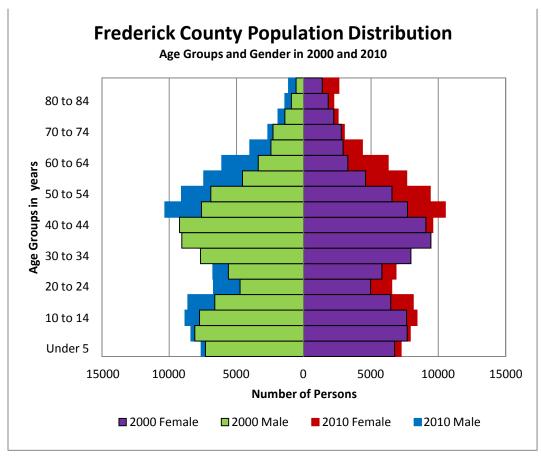
Approximately 9% of Frederick County residents are foreign born, which is only slightly less than the Maryland percentage of 12.8.

**Frederick County and Maryland Quick Facts** 

	Frederick	
	County	Maryland
Foreign Born Persons, 2007-2011	9.2%	12.8%
Language other than English spoken at home, percent age 5+, 2007-2011	11.9%	20.3%
High school graduate or higher, percent of persons age 25+, 2007-2011	91.5%	85.4%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	36.6%	28.2%
Persons per household, 2007-2011	2.67	2.6
Per capita money income in the past 12 months (2011 dollars), 2007-2011	\$36,343	\$27,915
Median household income, 2007-2011	\$82,668	\$52,762

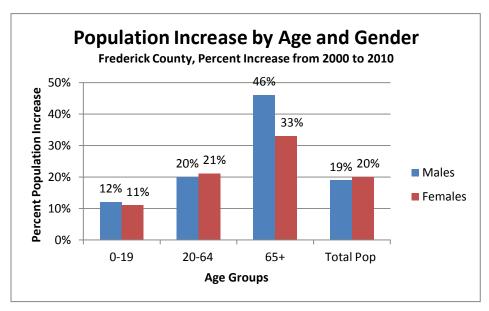
Source: US Census Bureau Quick Facts

A comparison of age groups in the Frederick County 2000 population to the 2010 population clearly shows the overall population growth as well as the shift of an aging population. All age groups 45 years and older show an increase since 2000. While there was an increase in the under 30 years of age group, the most notable increase is seen in the population over the age of 85 years, which increased 90% for females and 97% for males from 2000 to 2010.



Source: U. S. Census 2000 and 2010

While the overall population of Frederick County increased approximately 20% from 2000 to 2010, the 65 years and older population increased 46% for males and 33% for females.



Source: U. S. Census 2000 and 2010

#### SOCIAL DETERMINANTS OF HEALTH

The World Health Organization (WHO) defines social determinants of health as the conditions in which people are born, grow, live, work, and age. These conditions range from social to environmental and help determine an individual's health status and contribute to health inequities, differences in health status between individuals.

-World Health Organization

Examples of Social Determinants of Heath include:

- Education
- Housing
- Transportation
- Employment
- Access to Healthy Foods
- Access to Health Care
- Language and Literacy

The health of an individual is complex and is impacted by social and environmental factors, such as where the person lives and if the person has adequate housing. Understanding the relationship between health and social determinants of health provides a wider view of the issues to be addressed and provides the context in which to work to not only improve the health of the individual but the community at large.

Healthy People 2020 developed a framework that highlights five determinants of health:

- Economic Stability
- Education
- Social and Community Context
- Health and Health Care
- Neighborhood and Built Environment

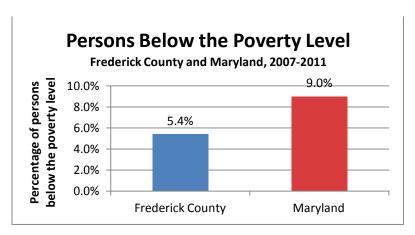
The following sections highlight social determinants of health data for Frederick County Maryland and compares to Healthy People 2020, if available.

## **Economic Stability**

#### **Poverty**

Poverty is a key social determinant of health which impacts an individual's health. Poverty is listed under Economic Stability which is one of the five focus areas for Social Determinants of Health developed by Healthy People 2020. According to the US Census, from 2007-2011 Frederick County's poverty rate of 5.4% was less than Maryland's rate of 9%.

Healthy People 2020 has not set a target for the percentage of persons living in poverty but the baseline rate is 15.1% of individuals live below the poverty threshold in the United States. The HP 2020 baseline is two and half times higher than the Frederick County rate. Frederick County appears to have a lower rate of poverty compared to Maryland and nationally partly due to a lower unemployment rate and higher median income.



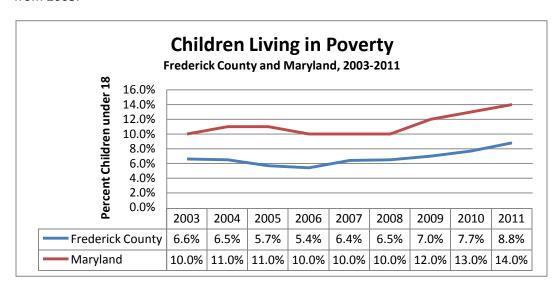
Source: US Census Quick Facts

From 2007-2011, the poverty level for Frederick County was less than Maryland but despite this good news there are groups of individuals that do not fare as well.

In addition, disparities exist in the percentages living in poverty across race and ethnicity. Blacks or African Americans, Hispanics, Asians, and individuals indentifying as some other race are more than twice likely to live in poverty as Whites.

#### **Children in Poverty**

The percentage of children living in poverty has increased In Frederick County and Maryland from 2003 to 2011. In 2011, 8.8% of children in Frederick County were living in poverty which is a 33% increase from 2003.



Source: Annie E. Casey Kids Count Data Center, accessed 3/27/2013. Definitions: The share of children under age 18 who live in families with incomes below the federal poverty level, as defined by the U.S. Office of Management and Budget.

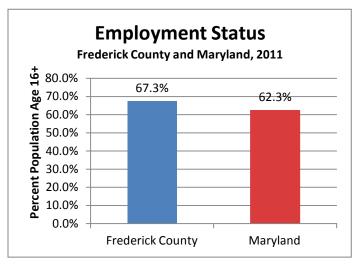
Between 2003 and 2011, the percentage of children living in poverty increased in both Frederick County and Maryland. Maryland has had higher percentages than Frederick County during the time period 2003-2011. In 2011, the Maryland percentage was 1.5 times the Frederick County percentage.

Healthy People 2020 has not set a target for the percentage of children living in poverty but the national baseline rate is 22% of children lived below the poverty threshold in 2010. The Healthy People 2020 baseline is two and half times higher than the Frederick County percentage.

As when looking at all ages combined, Frederick County appears to have a lower percentage of children in poverty compared to Maryland and nationally because of a lower unemployment rate and higher median income.

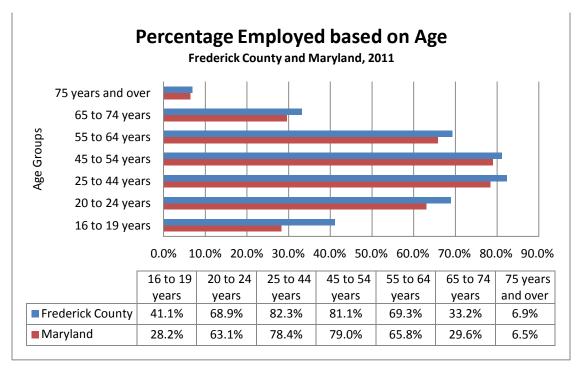
#### **Employed**

Employment status is a key social determinant of health which impacts an individual's health. The employment rate is listed under Economic Stability which is one of the five focus areas for Social Determinants of Health developed by Healthy People 2020.



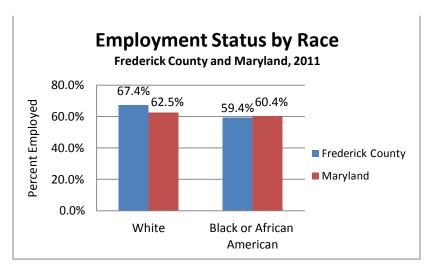
Source: US Census, America Fact Finder

In 2011, Frederick County had a higher percentage of individuals aged 16 years and over that was employed at 67.3% versus 62.3% for Maryland.



Source: US Census, America Fact Finder

The age groups with the highest percentage of employment in Frederick County and Maryland are 24-44 years of age and 45-54 years.



Source: US Census, America Fact Finder

In Frederick County and Maryland, individuals identified as White had a higher percentage of persons employed compared to individuals identified as Black or African American.

Healthy People 2020 has not set a target for the percentage of individuals employed but has established a national baseline of 71 percent of children ages 0-17 were living with at least one parent employed

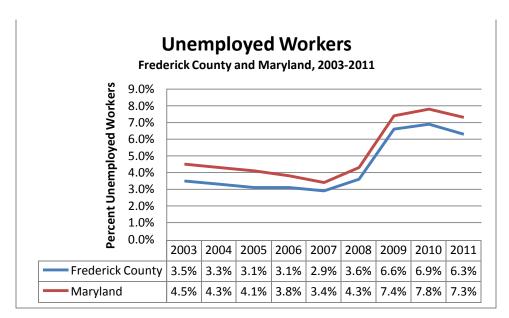
year round, full time in 2010. In 2011, Frederick County had 73.2% of families with children under 18 years had a householder employed full-time, year round in the past 12 months.

#### Unemployment

Between 2003 and 2012, the percentage of unemployed increased in both Frederick County and Maryland. The percentage of people unemployed in Frederick County has increased 66%, from 3.5% to 5.8%. Although the peak percentage was 6.9% in 2010, the percentage of unemployed has decreased since 2010.

In 2010, Maryland and Frederick had their highest percentages, 7.8% for Maryland and 6.9% for Frederick County. In 2012, the Maryland percentage was 1.2 times the Frederick County percentage.

The percentage of unemployment improved as the United States recession began to end. According to the US Bureau of Labor Statistics, the most recent recession ended June 2009.



Source: Annie E. Casey Kids Count Data Center, accessed 10/30/2013.

#### **Homelessness**

Housing Stability is a key social determinant of health which impacts an individual's health. Homelessness is an indicator listed under Economic Stability which is one of the five focus areas for Social Determinants of Health developed by Healthy People 2020.

Between 2011 and 2013, the number of homeless adults decreased by 1.7%, from 280 to 275.

#### **Adult Homelessness Data**

Location	2011	2013	% Change 2011 to 2013
Frederick County	280	275	-1.7%
Maryland	10148	8205	-19.1%

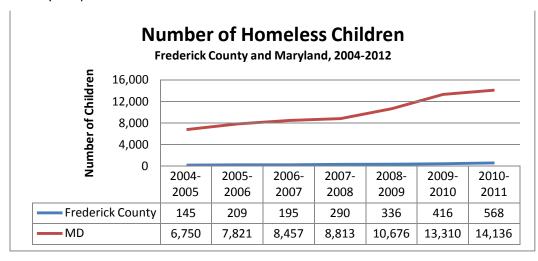
Source: Maryland Point in Time Analysis, 2013, Metropolitan Washington Council of Governments <a href="http://www.mwcog.org/uploads/pub-documents/qF5cX1w20130508134424.pdf">http://www.mwcog.org/uploads/pub-documents/qF5cX1w20130508134424.pdf</a> . Accessed Oct. 25, 2013

Between 2011 and 2013, the number of homeless adults decreased in both Frederick County and Maryland. Maryland had a higher number of homeless adults and higher percentage decrease in the number of homeless adults compared to Frederick County (19% vs. 1.7%).

The assessment of the number of homeless in Frederick County is a point in time assessment which may have impacted the number of individuals counted.

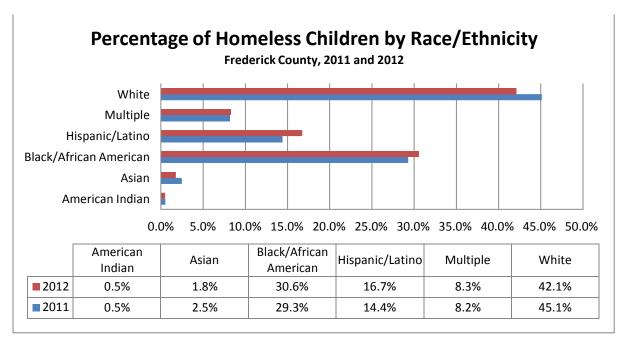
#### **Homeless Children**

Homelessness in children is a more specific indicator for housing stability, an indicator listed under Economic Stability which is one of the five focus areas for Social Determinants of Health developed by Healthy People 2020.



Source: Maryland State Department of Education

Between the school year 2004/2005 to school year 2010/2011, the number of homeless children in Frederick County increased by 291%, from 145 to 568. Between the school year 2004/2005 to school year 2010/2011, the number of homeless children increased in both Frederick County and Maryland, possibly due to the economic recession.



Source: Maryland State Department of Education

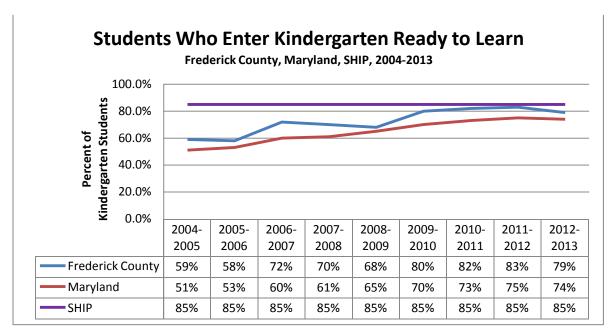
In 2012, the percentage of students by racial and ethnic groupings that were homeless in Frederick County in descending order were Whites (42.1%), Blacks/African American (30.6%), Hispanic/Latino (16.7%), Multiple races (8.3%), Asian (1.8%) and American Indian (0.5%).

#### Education

Education is a key indicator for the Healthy People 2020 focus area on social determinants of health.

#### **Kindergarten Readiness**

The percentage of children ready for kindergarten is a specific education indicator. According to a 2006 Rand Corporation report preparedness for kindergarten is predictive of later achievement in other grades.



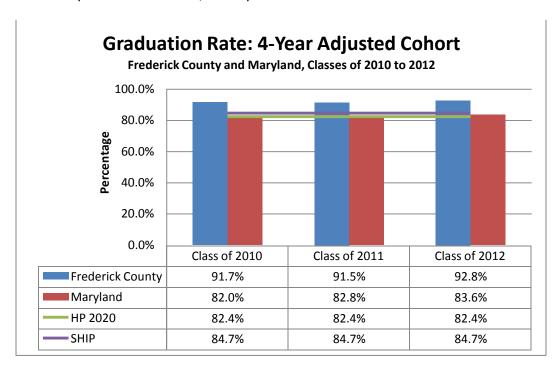
Source: Annie E. Casey Kids Count Data Center, accessed 6/11/2013. Maryland SHIP Obj. 10.

Between 2004 and 2013, the percent of children ready for kindergarten in Frederick County increased 34%, from 59% to 79%. There has been an increase in the percent of children ready for kindergarten in both Frederick County and Maryland. Frederick County has a higher percentage than Maryland. In 2012, the percentage for Frederick County was 79% versus Maryland at only 74%.

Frederick County has not achieved the Maryland SHIP goal of 85% of children ready for kindergarten.

#### **High School Graduation Rates**

The percentage of children graduating from high school is a specific education indicator. According to the National Center for Education Statistics, in 2010 schools with higher poverty rates had lower graduation rates from high school.



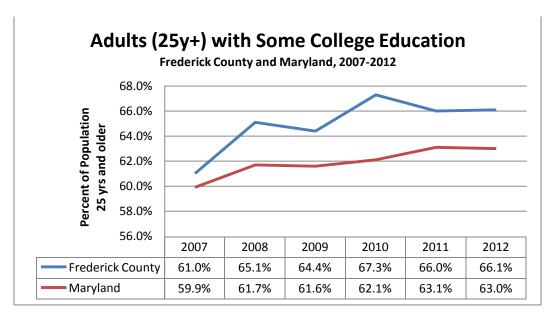
Source: Annie E Casey Kids Count Data Center; HP 2020 AH-5.1; Maryland SHIP Obj. 11.

Between 2010 and 2012, the percentage of students graduating high school in Frederick County increased 1.2%, from 91.7% to 92.8%. There also was an increase in the percent of students graduating high school in Maryland. Frederick County has a higher percentage than Maryland. In 2012, the percentage for Frederick County was 92.8% versus Maryland's percentage of 83.6%. The higher graduation rates may be due to the lower poverty rates in Frederick County.

Frederick County has exceeded both the Maryland SHIP and Healthy People 2020 goals.

#### **Some College Education**

The percentage of adults with some college education is a specific education indicator for the Healthy People 2020 focus area on social determinants of health. Individuals with higher levels of education tend to have improved health outcomes. In addition, individuals with college education tend to earn more income than non college educated individuals as college education may lead to a greater access to health care services and therefore improved health.

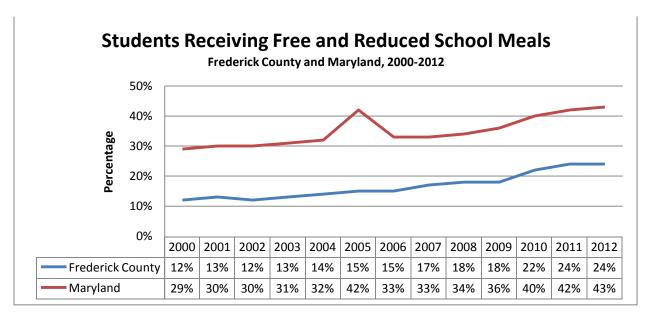


Source: U.S. Census, American Fact Finder Report S1501, ACS 1-year estimates, 2007-2012. Some college education includes all education higher than high school graduate, including: some college no degree, associate's degree, bachelor's degree, and graduate or professional degree.

Between 2007 and 2012, the percentage of adults ages 25 and older with some college education in Frederick County increased from 61% to 66.1%. Frederick County's percentage has consistently been higher than the Maryland percentage.

# Neighborhood and Built Environment Students Receiving Free and Reduced School Meals

The percentage of children receiving free and reduced meals (FARM) is a measure of economic disadvantage. The FARM program provides meals to students that meet certain income guidelines which are 130% to 185% of the federal poverty level. In 2012, a family of four making less than \$29,055 could qualify to receive free meals and a family of four making less than \$41,348 could qualify to receive reduced price meals. The increased percentage of children qualifying for free and reduced meals indicates an increasing number of children in poverty. In an effort to counter the reality of increased poverty, FARM provides children access to healthy food, which improves the quality of their health by providing adequate nutrition during the school day.



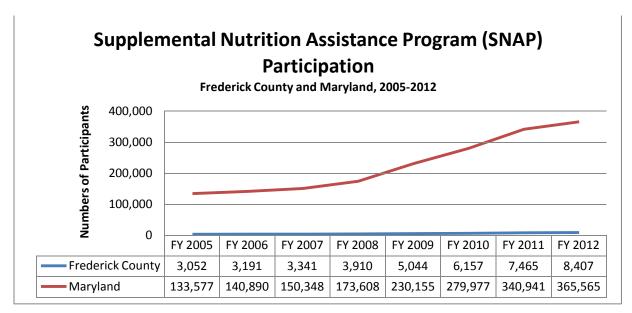
Source: Annie E. Casey Kids Count Data Center, accessed 3/27/2013.

Between 2003 and 2012, the percentage of students receiving free and reduced meals in Frederick County increased 85%, from 13% to 24%. Both Frederick County and Maryland experienced an increase in the percentage of students receiving free and reduced meals. The Maryland percentage of students receiving free and meals is almost double that for Frederick County.

The economic recession which lead to increased unemployment rates may have contributed to the increased percentage of students receiving free and reduced meals (FARM).

#### Participation in Supplemental Nutrition Assistance Program (SNAP)

The availability of access to healthy food is a social determinant of health. The SNAP program provides access to low income individuals and families to healthy foods which they may not have otherwise accessed due to limited financial resources.

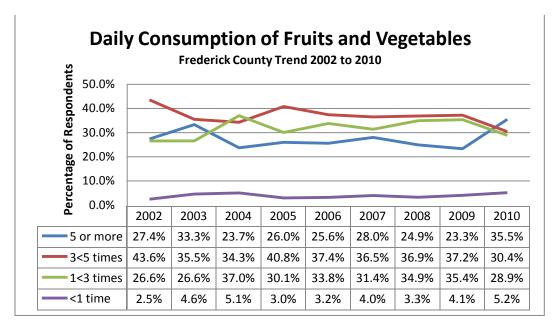


Source: Annie E. Casey Kids Count Data Center, accessed 4/4/2013. The data collected is in federal government fiscal year format. The Fiscal Year cycle is from July 1 to June 30.

Between 2005 and 2012, the number of households participating in the supplemental nutrition program (SNAP) in Frederick County increased 175%, from 3052 to 8407. Both Frederick County and Maryland experienced an increase in the number of households participating in SNAP. The economic recession which lead to increased unemployment rates may have contributed to the increased number of households participating in SNAP.

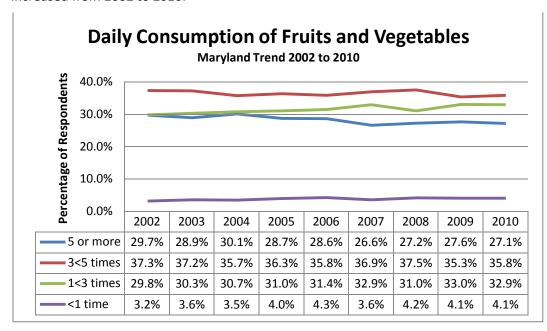
#### **Daily Consumption of Fruits and Vegetables**

Access to healthy foods such as fruits and vegetables are important to maintain good health and nutrition.



Source: BRFSS Data, Question: FRUITS AND VEGETABLES: SUMMARY INDEX FOR FRUITS AND VEGETABLES

Between 2002 and 2010, the percentage of people eating 5 or more fruits and vegetables a day increased by 30%, from 27.4% to 35.5%. The trend indicates that Frederick County residents are eating more servings of fruit a day even though the percentage of people eating fruit less than one time a day increased from 2002 to 2010.



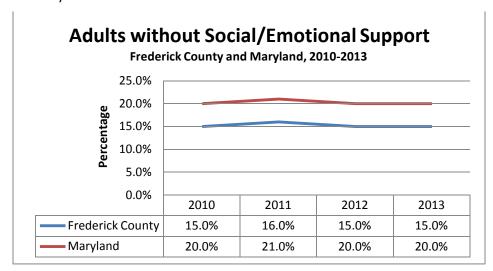
Source: BRFSS Data, Question: FRUITS AND VEGETABLES: SUMMARY INDEX FOR FRUITS AND VEGETABLES

Maryland had lower percentage of people eating 5 or more fruits a day compared to Frederick County. In addition, while Frederick County saw in increase in the percentage of people eating 5 or more fruits and vegetables a day, Maryland saw a decrease.

The increase in the percentage of people eating 5 or more fruits a day may be due to the increasing focus on healthy eating and obesity prevention in Frederick County. Eating healthier is associated with improved health and weight.

#### **Inadequate Social Support**

Limited supports from family and community involvement are associated with premature death and disability.



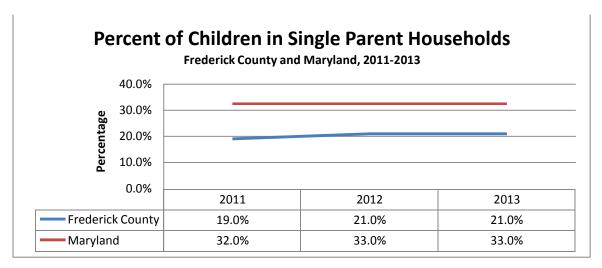
Source: County Health Rankings

In the 2011-2013 County Health Rankings Reports, the percentage of adults without social/emotional support in Frederick County has stayed relatively the same except for a slight increase in the 2011 Report to 16%. Maryland has a higher percentage of adults without social/emotional support than Frederick County.

#### **Single-Parent Households**

This indicator is important because children in single-parent households are at greater risk for death and disability than children in two-parent households. The health risks associated with adults and children in single parent households are mental health problems (including substance abuse, depression, and suicide) and unhealthy behaviors such as smoking and excessive alcohol use.

Source: County Health Rankings. Children in Single Parent Households. Accessed August 29, 2013. http://www.countyhealthrankings.org/app/#/maryland/2013/measure/factors/82/description



Source: County Health Rankings

In the 2011-2013 County Health Rankings Reports, the percentage of children in single parent households in Frederick County increased 10.5%, from 19% in the 2011 Ranking to 21% in the 2013 Ranking. Maryland has a higher percentage of children living in single-parent households than Frederick County. In the 2013 County Health Ranking Report, Maryland's percentage was 1.6 times higher than Frederick County.

#### Injury and Violence

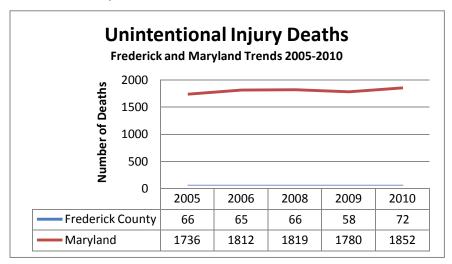
Despite today's changing society, injury and violence remain as top causes of death. In America alone, injuries have become the leading cause of death from ages 1 to 44, and a leading cause of disability for all ages, regardless of sex, race/ ethnicity, or socioeconomic status. Unintentional injuries and those caused by acts of violence can instantly compromise the physical safety and mental well- being of someone at any stage of their life. This indicator has long been a public health issue as violent incidents can lead to health consequences such as lasting injuries, disabilities or death. As of 2009, the top three causes of unintentional injury deaths in Frederick County are falls, motor vehicle accidents, and suffocation.

The number of fatalities from injuries and violence surpasses those from cancer by about three to one, but it is far less recognized as a preventable cause. Preventive measures can be taken against violent incidents that result in injury, disability or death because they are occurrences that could have been avoided through knowledge of available resources and safety education programs. Injury- related death rates can be reduced by investing in these preventive safety measures that can positively change human behavior and the community. The health of Frederick County and the nation can be improved through these means and decrease the rate of nonfatal and fatal injuries.

#### **Unintentional Injury**

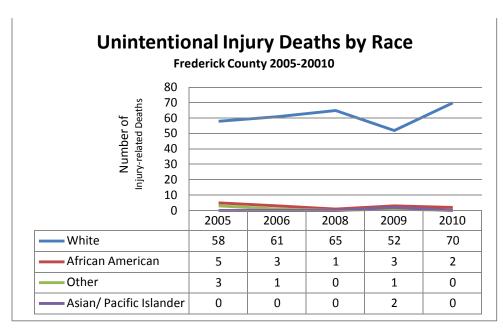
Unintentional injuries and those caused by acts of violence can instantly compromise the physical safety and mental well- being of someone at any stage of their life. This indicator has long been a public health issue as violent incidents can lead to health consequences such as lasting injuries, disabilities or death.

As of 2009, the top three causes of unintentional injury deaths in Frederick County are falls, motor vehicle accidents, and suffocation.



Source: Injuries in Maryland: Statistics on Injury-related Emergency Department Visits, Hospitalizations and Deaths. Reports from 2005-2010. Maryland Department of Health and Mental Hygiene.

In Frederick County the number of unintentional injury- related deaths slightly increased from 66 deaths in 2005 to 72 deaths in 2010. In 2010the number of unintentional injury- related deaths by race was White (70 deaths), African American (2 deaths), Asian and Pacific Islander (0 deaths), and Other (0 deaths).



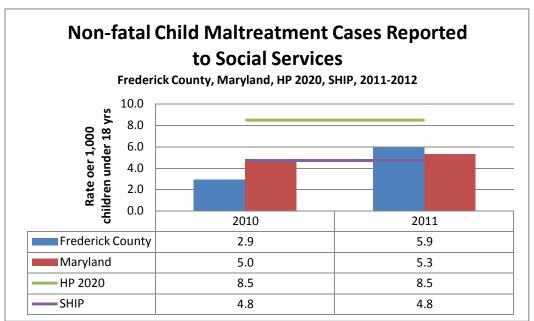
Source: Injuries in Maryland: Statistics on Injury-related Emergency Department Visits, Hospitalizations and Deaths. Reports from 2005-2010. Maryland Department of Health and Mental Hygiene.

The Frederick County Health Department works in partnership with the local Coalition, Safe Kids Frederick County, which serves to prevent unintentional injuries in children ages 14 years and under. The Frederick County Coalition is also a member of the Maryland State Safe Kids Coalition.

Further information can be found at the health department's <u>Injury Prevention</u> website.

#### **Child Abuse Rate**

Children who experience abuse or neglect can be found in families of all socioeconomic, racial and ethnic groups. These children are significantly more likely to exhibit emotional or behavioral problems in the future and it is essential to implement preventive measures against child abuse and provide social support systems for troubled families.



Source: MD SHIP Obj. 7; Health People 2020 IVP-38.

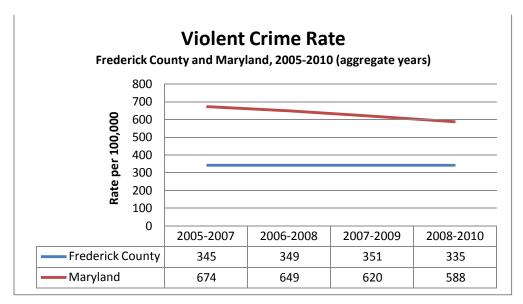
Between the years 2010 and 2011, the rate of indicated non- fatal child maltreatment cases reported to social services noticeably increased in Frederick County. In 2011, the rate was 5.9 cases per 1,000 children under the age 18 and in 2010 the rate was 2.9 cases per 1,000 children.

The rate of child maltreatment in Frederick County is marginally higher than that of Maryland which is 5.3 cases per 1,000 children. Both rates of child maltreatment in the county and the state have increased since 2010.

Frederick County satisfies the Healthy People 2020 objective of 8.5 cases or lower, but not the SHIP objective of 4.8 or lower.

#### **Violent Crime Rate**

Violence that is premeditated can lead to major psychological as well as physical consequences on an individual's health. Any exposure to violence such as homicide, forcible rape, robbery, child maltreatment or aggravated assault can increase anxiety and the prevalence of stress- related illnesses. These long lasting consequences can be detrimental to the degree of safety and trust a victim is capable of feeling again.



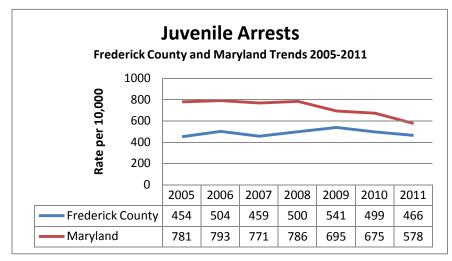
Source: County Health Rankings, Uniform Crime Reporting (UCR) Program FBI.

The violent crime rate has decreased slightly in Frederick County, from the 345 offenses per 100,000 population reported for 2005-2007 to the 335 offenses per 100,000 reported for 2008-2010.

Maryland has also had a decreasing crime rate as there were 674 offenses per 100,000 reported for 2005-2007 and 588 offenses per 100,000 in 2008-2010. The crime rate in Maryland remains higher than that of Frederick County.

#### **Juvenile Arrests**

Minors under the age of 18 can be heavily influenced by their surroundings and certain environmental or social factors can lead them to participating in illegal behavior. A higher rate of juvenile arrests in a community can be a result of children growing up in a distressed neighborhood, stressful families, or among peer pressure. Youth development interventions can help prevent adolescents from participating in risk behaviors and help them make positive changes.



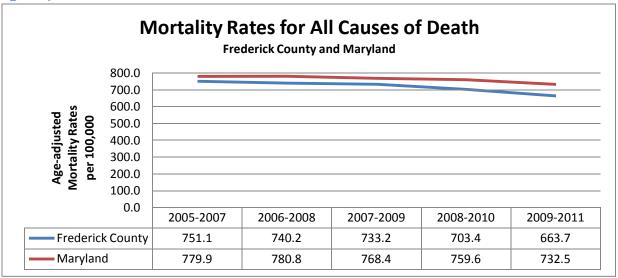
Source: Arrest data from the Maryland State Police. Definitions: The juvenile arrest rate is the number of arrests of juveniles, ages 10-17, for violent and non-violent offenses, per 10,000 youths ages 10-17.

Between the years 2008 and 2011, the rate of juvenile arrests in Frederick County has been gradually decreasing. In 2008 the rate was 500 arrests per 10,000 youths and 466 per 10,000 youths in 2011.

Frederick County's juvenile arrest rate has been consistently lower than Maryland between the years 2005 to 2011. However, Maryland's juvenile arrests rate has been steadily decreasing since 2005, aside from slight peaks in 2006 and 2008.

#### **DEATH**

**Age-Adjusted Death Rates for All Causes** 



Source: Maryland Vital Statistics

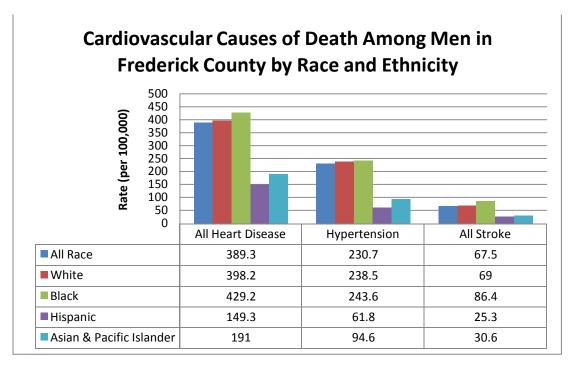
The overall mortality or death rate is decreasing for Frederick County residents.

The overall mortality or death rate is significantly lower in Frederick County than in Maryland in the time periods shown, from 2005 to 2011 with the rate of death decreasing faster in Frederick.

#### **Cardiovascular Causes of Death by Gender**

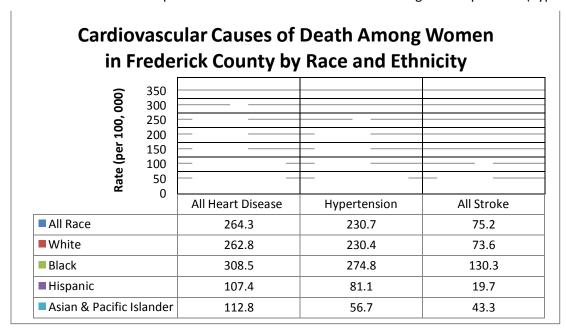
The death rate from cardiovascular causes in Frederick County, including heart disease, high blood pressure (hypertension) and stroke, is highest for Black men, followed by White men and then Asian & Pacific Islander and Hispanic men. The death rate from heart disease, high blood pressure (hypertension), and stroke is significantly lower for Hispanic men compared to White and Black men, by approximately 50%.

In the source used for this indicator, decedents of Hispanic origin are included in the totals for each race group unless otherwise specified according to the decedent's race as reported on the death certificate. Data shown for Hispanic persons include all persons of Hispanic origin of any race.



Source: CDC Atlas of Heart Disease and Stroke; Death Rate per 100,000, 35+, 2008-2010

The death rate from heart disease, high blood pressure (hypertension) and stroke in Frederick County is highest for Black women, followed by White women, and then Hispanic and Asian & Pacific Islander women. Hispanic women had the lowest rates of death from heart disease and stroke and Asian & Pacific Islander women experienced the lowest rate of death from high blood pressure (hypertension).



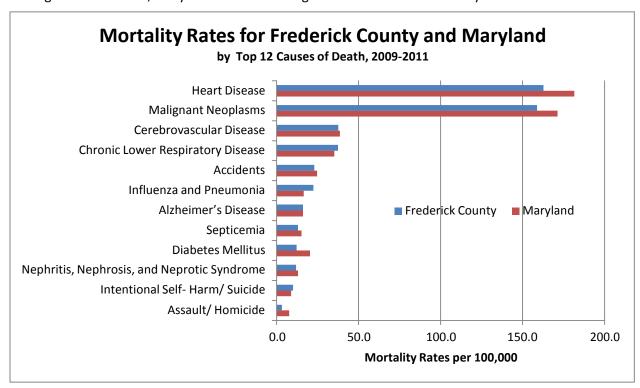
Source: CDC Atlas of Heart Disease and Stroke; Death Rate per 100,000, 35+, 2008-2010

The death rate from heart disease is greater for men than women across the race and ethnicity groups shown. The death rate from high blood pressure is higher for women than men except for Asian &

Pacific Islander women. White, Black, and Asian & Pacific Islander women have a higher rate of death from stroke than men, but Hispanic men have higher rates of death from stroke than Hispanic women.

### **Age-Adjusted Death Rates for Leading Causes of Death**

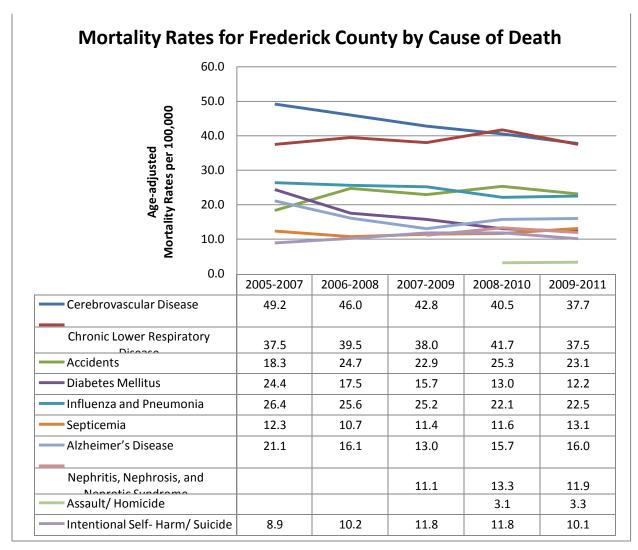
The leading cause of death in Frederick County from the grouped years of 2005-2007 to 2009-2011 is heart disease. The second leading cause of death for those grouped years is cancer (malignant neoplasms). Heart disease and cancer are also the top two leading causes of death in Maryland, and account for approximately 60% of all deaths in both Maryland and Frederick County. For the top three leading causes of death, Maryland's death rate is greater than Frederick County's.



Source: Maryland Vital Statistics

Cerebrovascular disease had been the 3<sup>rd</sup> leading cause of death for many years before dramatically dropping in the period 2009-2011 to a rate that is now equal to that of chronic lower respiratory (lung) disease. Likewise, the death rate from diabetes dropped in half, moving it from the 6<sup>th</sup> leading cause of death in the period 2005-2007 to the 9<sup>th</sup> leading cause of death in the period 2009-2011. Accidents became the 5<sup>th</sup> leading cause of death in the 2009-2011 period. Influenza and pneumonia were the 6<sup>th</sup> leading cause of death in 2009-2011, a slight decrease from prior years. Intentional self-harm (suicide) returned to the 11<sup>th</sup> leading cause of death in the period 2009-2011 after a slight increase in the prior period.

In the most recent time period, 2009-2011, Frederick County's death rate from cerebrovascular disease (stroke) dropped slightly below the Maryland death rate after years of being much higher. The death rate from chronic lower respiratory (lung) disease remains higher in Frederick County than in Maryland. The death rate from Alzheimer's disease in Frederick County dropped to now be closer to the Maryland death rate.



Source: Maryland Vital Statistics

# 2010 Leading Causes of Death by Age Groups

While heart disease and cancer are the overall leading causes of death, looking at different age ranges shows that cause of death changes over a lifetime. Accidents are the 5<sup>th</sup> leading cause of death overall, but are the top cause of death for people ages 15-22 years, and are the second highest cause of death for people 35-44 years. Malignant neoplasm, or cancer, is the leading cause of death for people ages 35-84, but over 85 years of age the leading cause of death shifts to heart disease.

### 2010 LEADING CAUSES OF DEATH IN FREDERICK COUNTY

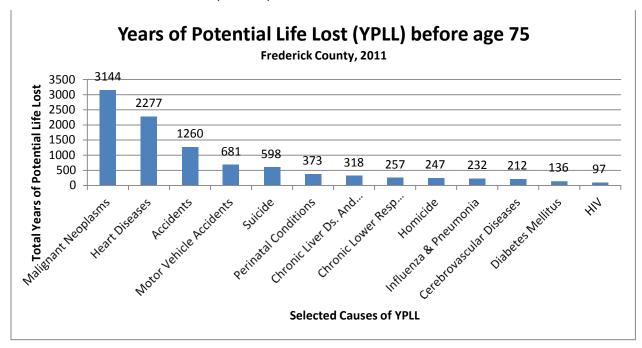
	#1	#2	#3
Age 15-24	Accidents	Suicide	*
Age 35 to 44	Malignant Neoplasms	Accidents	*
Age 45 to 54	Malignant Neoplasms	Heart Disease	Accidents
Age 55 to 64	Malignant Neoplasms	Heart Disease	Accidents
Age 65 to 74	Malignant Neoplasms	Heart Disease	Non Cardiac Vascular Disease
Age 75 to 84	Malignant Neoplasms	Heart Disease	Chronic Lower Respiratory Disease
Age 85+	Heart Disease	Non Cardiac Vascular Disease	Malignant Neoplasms

Source: Maryland Vital Statistics Administration and Matchstat.org.

# **Years of Productive Life Lost (YPLL)**

Years of Productive Life Lost (YPLL) is a summary measure of premature mortality (early death). It represents the total number of years not lived by people who die before reaching a given age. Deaths among younger persons contribute more to the YPLL measure than deaths among older persons. This is a measure of the economic and social impact of premature death by cause.

In Frederick County the number of years not lived by people who died was greatest for persons who died from cancer followed by those who died from heart disease. Accidents and motor vehicle accidents result in the third and fourth most years of productive lives lost.



Source: Maryland Vital Statistics

<sup>\*</sup>Blanks, including age groups not reported, are due to suppressed death counts from the source.

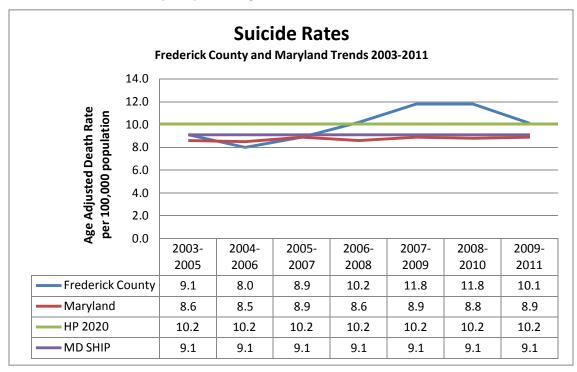
### **Suicide Mortality**

Suicide is a major, preventable public health problem. Suicide is the 11th leading cause of death in the United States, accounting for the deaths of approximately 30,000 Americans each year.

Suicidal behavior is complex. Some risk factors vary with age, gender, or ethnic group and may occur in combination or change over time.

-National Institute of Mental Health

Frederick County has seen a steady increase in suicide rates. Between 2007 and 2009, 81 Frederick County residents took their own lives, making the Frederick County suicide rate higher than Maryland but lower than the Healthy People 2020 goal.



Source: Maryland Department of Health and Mental Hygiene Vital Statistics Annual Reports; Healthy People 2020 MHMD-1; Maryland SHIP Obj. 8.

Data is available from the Maryland Vital Statistics Annual Report for years 2003 through 2012. Data is grouped together into two year reporting periods and overlap from year to year. Data for year 2012 includes only information reported for year 2012. The suicide rate for Frederick County was at its lowest during the 2004-2006 reporting period – 8.0. The rate increased to 11.8, and held steady until the 2009-2011 reporting period when the rate decreased to 10.1. The most recent data, which includes data for a single year only, 2012, shows the number has increased to its highest level, 12 per 100,000 population.

The age adjusted death rate per 100,000 population from intentional self harm (suicide) has been higher in Frederick County than the State of Maryland for six out of the eight most recent reporting periods.

<sup>\*</sup> Adjusted to the standard U.S. 2000 population by the direct method. These rates should only be compared with other rates age-adjusted to the same population.

The Frederick County suicide rate was equal to the State suicide rate during the 2005-2007 reporting period at 8.9, and was slightly lower than the State average of 8.5 during the 2004-2006 reporting period. Maryland's suicide death rate appears to remain constant while the Frederick County rate is increasing. The most recent data released by Maryland SHIP, for 2012 only, indicates that this trend is continuing with Frederick County's rate increasing to 12.0, while Maryland's rate decreased slightly to 8.7.

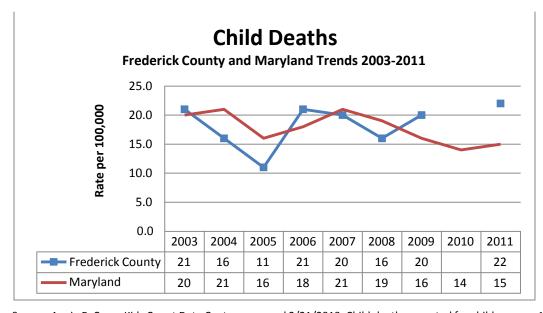
The Healthy People 2020 goal is to reduce the suicide rate to 10.2 per 100,000 population. The current year data shows Frederick falls short of this target with a rate of 12.0. The Maryland SHIP 2014 Objective is to reduce the suicide rate to 9.1, which Frederick County has not met.

There are no clear local factors associated with the suicide rate. However, access to care is limited due a low number of providers serving the Frederick County population. Additionally, several providers do not accept any health insurance, requiring full payment prior to services.

### **Child Mortality**

Improving the well-being of mothers, infants, and children is an important public health goal for the United States. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system.

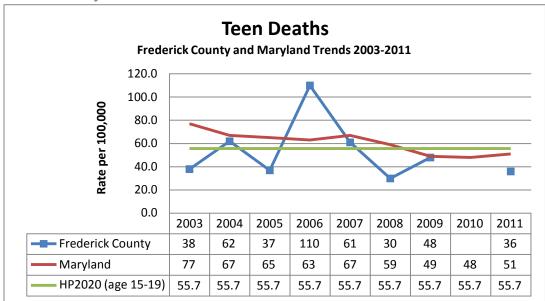
-Healthy People 2020



Source: Annie E. Casey Kids Count Data Center, accessed 2/21/2013. Child deaths reported for children ages 1-14 years. Gaps in report years are due to Low Number Events (LNE) were the value is 5 or less events and is not reported.

Between 2003 and 2011, the child death rate in Frederick County has fluctuated. In 2010, there were five or less deaths and thus no data was available to report. Between 2003 and 2011, Frederick County had a higher child death rate than Maryland. The three leading causes of death based on total number of deaths between 2003 and 2011 for children ages 1-14 years between 2003 and 2011 were accidents, cancer, and all other diseases (residual).

### **Teen Mortality**



Source: Annie E. Casey Kids Count Data Center, accessed 2/21/2013. Healthy People 2020 MICH-4.2. Teen deaths reported for youths age 15-19 years. Gaps in report years are due to Low Number Events (LNE) were the value is 5 or less events and is not reported.

Between 2003 and 2011, the teen death rate in Frederick County has fluctuated but decreased overall from 38 teen deaths per 100,000 teens in 2003 to 36 teen deaths per 100,000 teens in 2011. In 2010, there were five or less deaths and thus no data was available to report. Between 2003 and 2011, Maryland has had a higher teen death rate than Frederick County. In 2006, Frederick County had a higher teen death rate than Maryland. The three leading causes of death based on total number of deaths between 2003 and 2011 for adolescents ages 15-19 years were accidents, all other diseases (residual), and intentional self-harm (suicide).

The Healthy People 2020 goal is to reduce teen deaths for ages 15-19 to 55.7 per 100,000 teens in this age group. As of 2011, Frederick County data is meeting the HP 2020 goal for teen death rate.

# CHRONIC DISEASE

The majority of the top 10 inpatient and outpatient cases by diagnostic group in FY2012 reported on page 13 of FMH's 2013 Community Health Needs Assessment are related to chronic diseases.

### Cardiovascular Disease

Cardiovascular disease is the leading cause of death in the United States, and cardiovascular disease is fluctuates between the first or second leading cause of death in Frederick County. Stroke is the third leading cause of death both in the United States and Frederick County. Together heart disease and stroke are among the most disabling and costly chronic conditions. Yet there are modifiable risk factors, or actions that people can take, to lower their risk of developing heart disease or stroke.

The leading modifiable (controllable) risk factors for heart disease and stroke are:

- High blood pressure
- High cholesterol
- · Cigarette smoking
- Diabetes
- · Poor diet and physical inactivity
- Overweight and obesity

Over time, these risk factors cause changes in the heart and blood vessels that can lead to heart attacks, heart failure, and strokes. It is critical to address risk factors early in life to prevent the potentially devastating complications of chronic cardiovascular disease. Because these risk factors are modifiable, it is important for people to get screened for the various conditions, receive medical advice on how to better control those risk factors, and then to take the recommended actions.

Controlling risk factors for heart disease and stroke remains a challenge. High blood pressure and cholesterol are still major contributors to the national epidemic of cardiovascular disease. High blood pressure affects approximately 1 in 3 adults in the United States, and more than half of Americans with high blood pressure do not have it under control. High sodium intake is a known risk factor for high blood pressure and heart disease, yet about 90 percent of American adults exceed the recommendation for sodium intake.

The risk of Americans developing and dying from cardiovascular disease would be substantially reduced if major improvements were made across the U.S. population in diet and physical activity, control of high blood pressure and cholesterol, smoking cessation, and appropriate aspirin use.

# Why Are Heart Disease and Stroke Important?

Currently more than 1 in 3 adults (81.1 million) live with 1 or more types of cardiovascular disease.

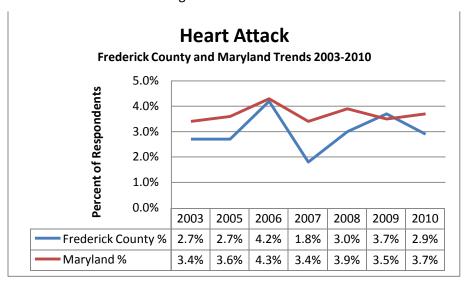
The burden of cardiovascular disease is disproportionately distributed across the population. There are significant disparities in the following based on gender, age, race, ethnicity, geographic area, and socioeconomic status:

- Prevalence of risk factors
- Access to treatment
- Appropriate and timely treatment
- Treatment outcomes
- Mortality

The 2013 FMH Community Health Assessment reported on page 36 the number of admissions in FY12 for heart disease and the percent of those admissions by race.

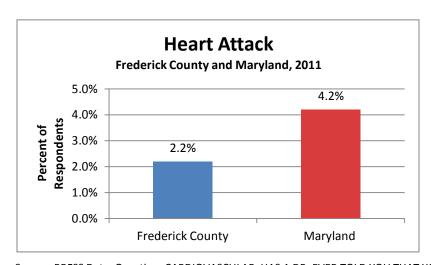
### **Heart Attack**

Since 2003 the percent of Frederick County residents told that they had a heart attack has gone up and down but overall hasn't changed.



Source: BRFSS Data, Question: CARDIOVASCULAR: HAS A DR. EVER TOLD YOU THAT YOU HAD A HEART ATTACK (MYOCARDIAL INFARCTION)?"

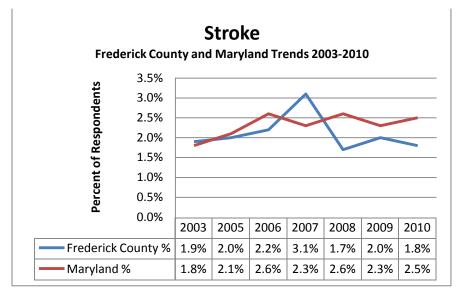
Since 2003 not as many Frederick County residents as Maryland residents reported being told that they had a heart attack except for 2009. In 2011 the percent in Frederick County residents was about half of the percent of Maryland residents reporting having had a heart attack.



Source: BRFSS Data, Question: CARDIOVASCULAR: HAS A DR. EVER TOLD YOU THAT YOU HAD A HEART ATTACK (MYOCARDIAL INFARCTION)?"

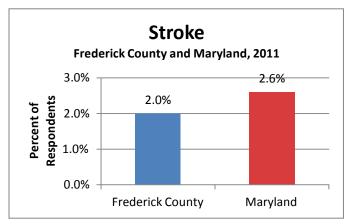
### **Stroke**

Since 2003 the percent of Frederick County residents who reported that they were told that they had a stroke has been relatively stable except for 2007 when there was an increased percent.



Source: BRFSS Data, Question: CARDIOVASCULAR: HAS A DR. EVER TOLD YOU THAT YOU HAD A STROKE?

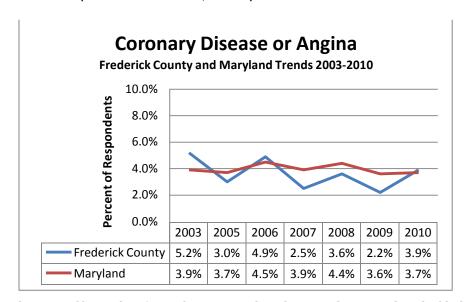
Since 2004 the percent of Frederick County residents compared to Maryland residents reporting being told they had a stroke was lower except for 2007. In 2011 the percent of Frederick County residents reporting that they had a stroke was 2 percent.



Source: BRFSS Data, Question: CARDIOVASCULAR: HAS A DR. EVER TOLD YOU THAT YOU HAD A STROKE?

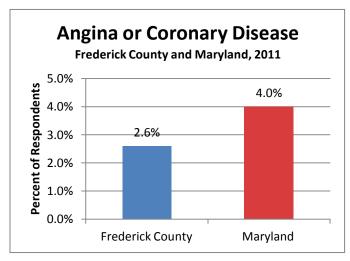
# **Coronary Disease or Angina**

Since 2003 the percent of Frederick County residents reporting that they had been told that they have angina or coronary disease has decreased from 5.2% down to a low 2.2% in 2009, but the percent started to increase in 2010 to 3.9%.



Source: BRFSS Data, Question: HAS A DR. EVER TOLD YOU THAT YOU HAD ANGINA OR CORONARY DISEASE?

In 2003 a greater percent of Frederick County residents reported being told that they have angina or coronary disease but between 2007 and 2009 and again in 2011 the Frederick County percent fell below the Maryland percent, which remained relatively steady between 2003 and 2010.

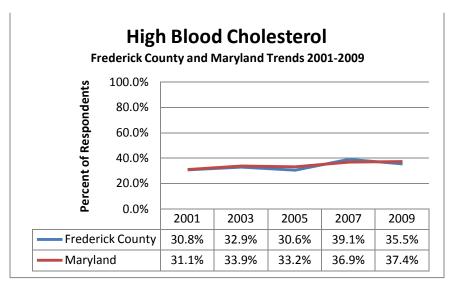


Source: BRFSS Data, Question: HAS A DR. EVER TOLD YOU THAT YOU HAD ANGINA OR CORONARY DISEASE?

# Cardiovascular Risk Factors

### **High Blood Cholesterol**

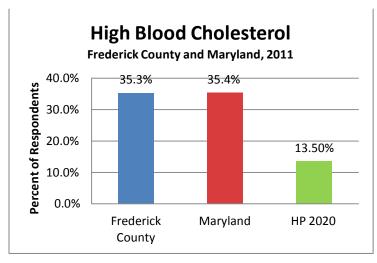
High cholesterol is a leading risk factor for persons developing heart disease and stroke. The National Cholesterol Education program recommends that healthy adults get their cholesterol level checked every 5 years. Persons with certain health conditions may require more frequent checks.



Source: BRFSS Data, Question: EVER BEEN TOLD BY A DOCTOR OR HEALTH PROFESSIONAL THAT YOUR BLOOD CHOLESTEROL IS HIGH?

Since 2001 the percent of Frederick County residents reporting being told they had high cholesterol has increased. Thirty-five percent of Frederick County residents reported that they were told that they had high cholesterol in 2009.

The percent of residents from Frederick County and Maryland reporting ever being told they had high cholesterol has been about the same since 2001.

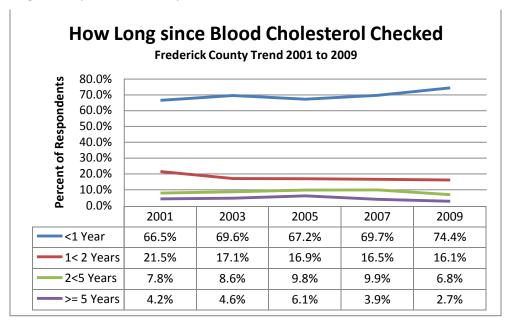


Source: BRFSS Data, Question: EVER BEEN TOLD BY A DOCTOR OR HEALTH PROFESSIONAL THAT YOUR BLOOD CHOLESTEROL IS HIGH?; Healthy People 2020 HDS-7.

The Frederick County percent is about two times higher than the Healthy People 2020 goal. This goal has not been met.

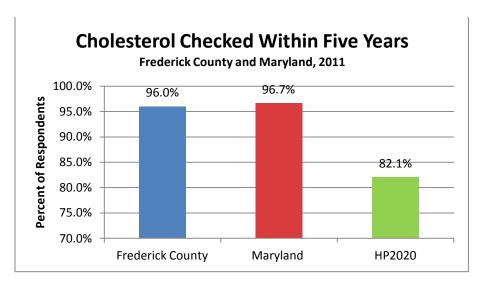
# **How Long Since Blood Cholesterol Checked**

The percent of people reporting that they had their cholesterol checked within the last year has increased slightly since 2001. At the same time, the percent of Frederick County residents reporting a longer time period since they last had their cholesterol checked also decreased.



Source: BRFSS Data, Question: HOW LONG SINCE YOU LAST HAD YOUR BLOOD CHOLESTEROL CHECKED?

Slightly more Maryland residents reported having their cholesterol checked within the last 5 years compared to Frederick County residents.



Source: BRFSS Data, Question: HOW LONG SINCE YOU LAST HAD YOUR BLOOD CHOLESTEROL CHECKED? Healthy People 2020 HDS-6.

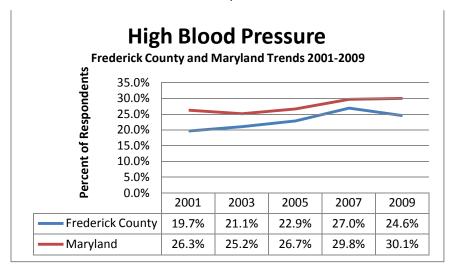
In 2011, 96% of Frederick County residents reported that they had their cholesterol checked within the last 5 years far exceeds the Healthy People 2020 goal of 82%.

# **Hypertension**

When your blood pressure is high: You are 4 times more likely to die from a stroke and you are 3 times more likely to die from heart disease.

http://millionhearts.hhs.gov/abouthds/blood pressure.html

High blood pressure, also called hypertension, is a leading cause of heart disease and stroke in the United States affecting 1 in 3 U.S. adults. Nationally high blood pressure caused or contributed to the deaths of more than 348,000 Americans in 2009—that's nearly 1,000 deaths per day. Only about half of people with high blood pressure have their condition under control. High blood pressure costs the nation an estimated \$51 billion each year.



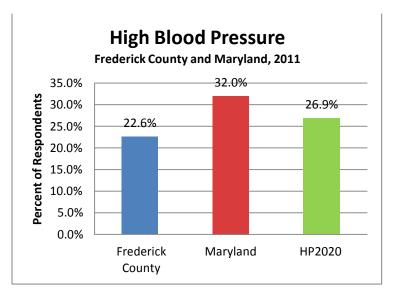
Source: BRFSS Data, Question: EVER BEEN TOLD BY A HEALTH PROFESSIONAL THAT YOU HAVE HIGH BLOOD PRESSURE?

The percent of persons reporting that they had ever been told by a health professional that they have hypertension (high blood pressure) increased from 2001 to 2009. The percent started trending back down in 2009, but is still above the 2001 percent.

The percent of persons in Frederick County reporting that they had ever been told by a health professional that they had hypertension (high blood pressure) is consistently below the percent for all Marylanders. In 2009 the gap widened between the percents for Frederick and Maryland.

The FMH 2013 Community Health Needs Assessment on page 17 reported the rate of emergency department visits due to hypertension in 2010 and 2011. Frederick County's rate in those years was already below the 2014 SHIP target.

# Frederick County Health Department Community Health Assessment, January 2014



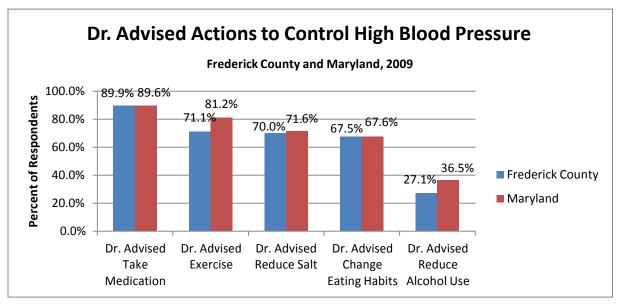
Source: BRFSS Data, Question: EVER BEEN TOLD BY A HEALTH PROFESSIONAL THAT YOU HAVE HIGH BLOOD PRESSURE?; Healthy People 2020 HDS-5.1

Frederick County exceeded the Healthy People 2020 goal in 2011 in the positive direction for persons ever told they have hypertension (high blood pressure).

There are a number of potentially contributing factors to both increases and decreases in the percent of persons reporting that they had ever been told that they have hypertension (high blood pressure). Some of those factors affect the numbers screened such as greater public awareness of the benefit of blood pressure screening and good control, and some factors are related to what is actually occurring, such as an increase in the number of persons with high blood pressure in our community. Some factors are related to changing practices in clinical care such as an increased emphasis on talking to patients about their blood pressure and closer follow-up of patient presents with an elevated blood pressure.

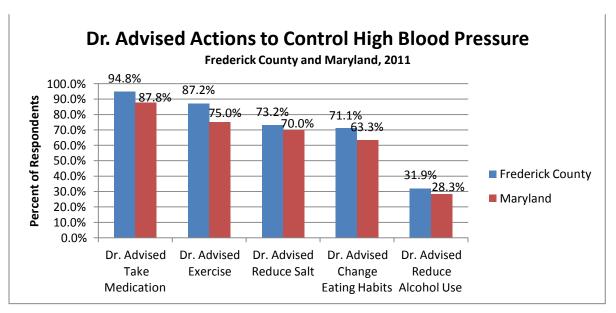
# **Doctor Advised Actions to Control High Blood Pressure**

Because there are so many risk factors that contribute to high blood pressure, the recommended approach is to advise changes to as many of them as possible. Education about risk factors and their impact on health and quality of life often begins with primary care physicians.



Source: BRFSS Data, Questions: ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO TAKE MEDICATION? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO CHANGE EATING HABITS? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO EXERCISE? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO REDUCE ALCOHOL USE? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO CUT DOWN ON SALT?

The 2009 BRFSS survey questioned respondents on five actions that their doctors may have recommended to control high blood pressure. Most people reported that their doctors recommended taking medication, and this was recommended slightly more in Frederick County than in Maryland. The other four actions that people reported their doctors advising (exercise, reducing salt, changing eating habits, and reducing alcohol use) were all recommended less often in Frederick County than in Maryland.



Source: BRFSS Data, Questions: ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO TAKE MEDICATION? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO CHANGE EATING HABITS? ACTIONS TO CONTROL HIGH

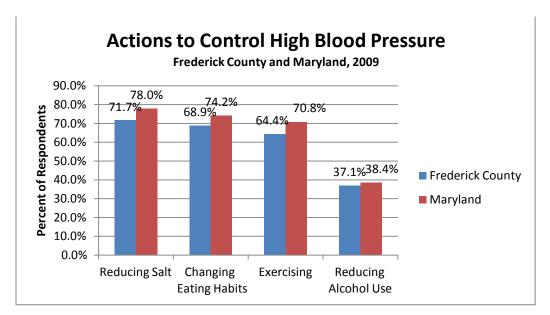
# Frederick County Health Department Community Health Assessment, January 2014

BLOOD PRESSURE: DR. ADVISED YOU TO EXERCISE? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO REDUCE ALCOHOL USE? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: DR. ADVISED YOU TO CUT DOWN ON SALT?

In 2011, more Frederick County residents with high blood pressure reported being advised by their doctors to take actions to control their high blood pressure than Maryland residents for each of the five actions (taking medication, exercise, reducing salt, changing eating habits, and reducing alcohol use).

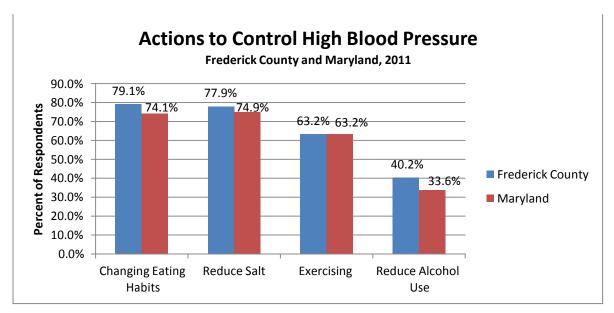
# **Actions Taken Control High Blood Pressure**

Doctors can make recommendations, but it is up to the patient to decide whether to follow through on adopting those actions into lifestyle changes.



Source: BRFSS Data, Questions: ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE YOU CHANGING YOUR EATING HABITS? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE EXERCISING? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE YOU REDUCING ALCOHOL USE? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE YOU CUTTING DOWN OF SALT?

The 2009 BRFSS survey questioned respondents on actions that they took to control high blood pressure. Most people reported that they cut down on salt (71.7% in Frederick County). Each of the four actions (reduce salt, change eating habits, exercise, reduce alcohol use) were reported less often in Frederick County than in Maryland.

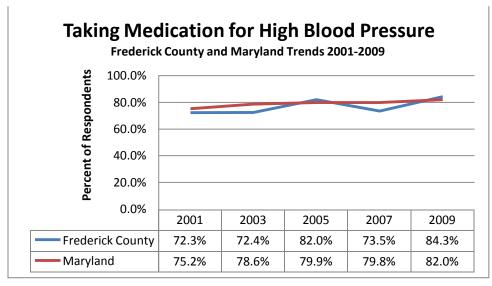


Source: BRFSS Data, Questions: ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE YOU CHANGING YOUR EATING HABITS? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE EXERCISING? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE YOU REDUCING ALCOHOL USE? ACTIONS TO CONTROL HIGH BLOOD PRESSURE: ARE YOU CUTTING DOWN OF SALT?

By 2011, more Frederick County residents with high blood pressure reported changing their eating habits to control their high blood pressure than Maryland residents. Three of the four actions (reduce salt, change eating habits, reduce alcohol use) were reported slightly more often in Frederick County than in Maryland, and residents in Frederick County and Maryland equally reported making changes to their exercise habits.

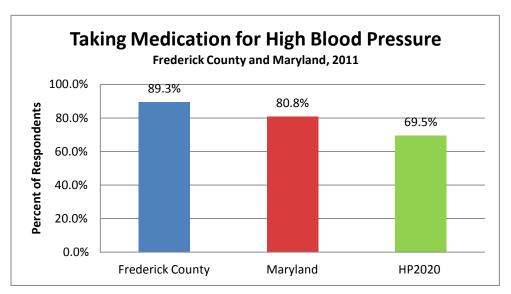
### **Taking Medication for High Blood Pressure**

The percent of persons in Frederick County ever told they have high blood pressure who are taking medicines to control their high blood pressure increased from 72% to 84% from 2001 to 2009.



Source: BRFSS Data, Question: ARE YOU CURRENTLY TAKING MEDICINE FOR YOUR HIGH BLOOD PRESSURE?

The percent of persons in Frederick County ever told they have high blood pressure who are taking medicines to control their high blood pressure from 2001 to 2009 was close to the percent for Maryland with some years the percent in Frederick being higher and some years lower. In 2011 the percent taking medicine in Frederick County remained above the percent in Maryland.



Source: BRFSS Data, Question: ARE YOU CURRENTLY TAKING MEDICINE FOR YOUR HIGH BLOOD PRESSURE?; Healthy People 2020 HDS-11.

According to the 2011 survey data, the percent of persons in Frederick County ever told they have high blood pressure who are taking medicines to control their high blood pressure exceeds in a positive direction both the Maryland percent and the Healthy People 2020 goal by a difference of 8 and 19 percent respectively.

### Diabetes

Diabetes mellitus (DM) affected an estimated 25.8 million people in the United States in 2010 and was the 7th leading cause of death in 2007. In Frederick County, it was the 9<sup>th</sup> leading cause of death from 2009-2011. Diabetes:

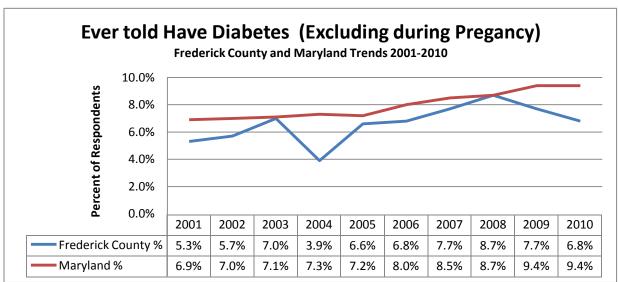
- Lowers life expectancy by up to 15 years.
- Leads to heart disease death rates that are 2 to 4 times higher among adults with diabetes than adults without diabetes.
- Increases the risk for stroke 2 to 4 times among people with diabetes.
- Is the leading cause of kidney failure, lower limb amputations, and adult-onset blindness.

In addition to these human costs, the estimated total financial cost of DM in the United States in 2007 was \$174 billion, which includes the costs of medical care, disability, and premature death.

The rate of DM continues to increase both in the United States and throughout the world. Due to the steady rise in the number of persons with DM, and possibly earlier onset of type 2 DM, there is growing concern about:

- The possibility of substantial increases in diabetes-related complications.
- The possibility that the increase in the number of persons with DM and the complexity of their care might overwhelm existing health care systems.
- The need to take advantage of recent discoveries on the individual and societal benefits of improved diabetes management and prevention by bringing life-saving discoveries into wider practice.
- The clear need to complement improved diabetes management strategies with efforts in primary prevention among those at risk for developing DM.

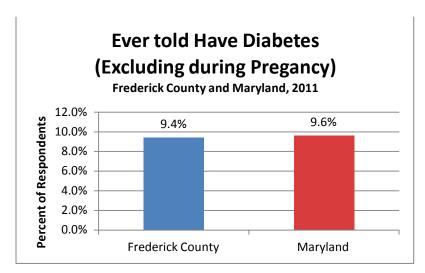




Source: BRFSS Data, Question: EVER TOLD BY A DOCTOR THAT YOU HAVE DIABETES? EXCLUDE: DIABETES AT PREGNANCY

In Frederick County, adults who reported ever being told they had diabetes (excluding diabetes during pregnancy) was at its lowest in 2004 (4%). In the years following, this percentage climbed and reached its peak in 2008 at 9%. In 2009 and 2010, adults who reported ever being told they had diabetes declined to 8% and 7% respectively.

Since 2001, the percentage of adults who reported ever being told they had diabetes (excluding diabetes during pregnancy) has consistently been higher in Maryland than Frederick County with the exception of 2003, 2005 and 2008 when they were the same. While Frederick County's percentage for this indicator declined in 2009 (8%) and 2010 (7%), the percentage in Maryland for these years remained the same at 9%.

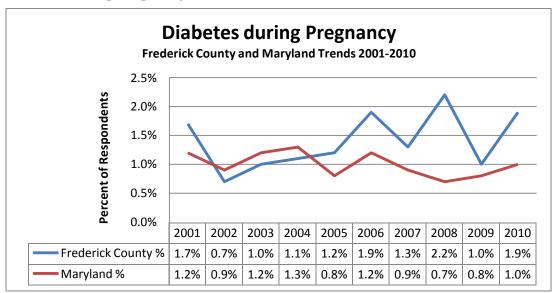


Source: BRFSS Data, Question: EVER TOLD BY A DOCTOR THAT YOU HAVE DIABETES? EXCLUDE: DIABETES AT PREGNANCY

In 2011, the percentage of adults who reported ever being told they had diabetes (excluding diabetes during pregnancy) was slightly lower in Frederick County (9.4%) than Maryland (9.6%).

Individuals who lack supportive services to make necessary lifestyle changes are at an increased risk for going on to develop diabetes. In Frederick County, there are few community programs available for un/underinsured individuals who are at risk for diabetes or have pre-diabetes.

# **Diabetes During Pregnancy**

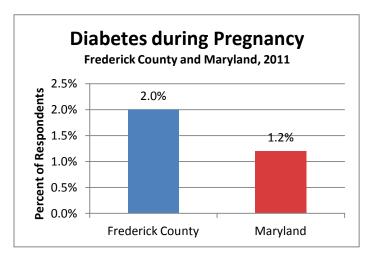


Source: BRFSS Data, Question: EVER TOLD BY A DOCTOR THAT YOU HAVE DIABETES?

In Frederick County, the percentage of women who reported having diabetes during pregnancy was highest in 2001 (1.7%), 2006 (1.9%), 2008 (2.2%), and 2010 (1.9%).

From 2001-2010, the percentage of women who reported having diabetes during pregnancy has consistently been lower in Maryland than in Frederick County with the exception of 2002, 2003 and

2004 when Maryland was slightly higher. In 2010, the percentage of women who reported having diabetes during pregnancy was 1.9% in Frederick County compared to 1.0% in Maryland.



Source: BRFSS Data, Question: EVER TOLD BY A DOCTOR THAT YOU HAVE DIABETES?

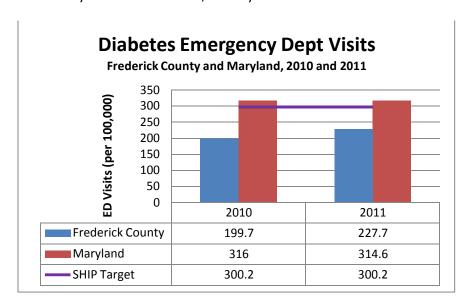
In 2011, the percentage of women who reported having diabetes during pregnancy was 2% in Frederick County compared to 1% in Maryland.

The Frederick Memorial Hospital Prenatal Clinic, which serves all women regardless of income or insurance status, opened in 2007. This service may be identifying more women with gestational diabetes who otherwise would have gone undiagnosed.

### **Diabetes Emergency Department Visits**

This indicator is important because poor management of diabetes may lead to increased use of the emergency department (ED). In Frederick County, there are few diabetes management programs available for un/underinsured individuals. Diabetes can lead to blindness, heart and blood vessel disease, stroke, kidney failure, amputations, nerve damage, pregnancy complications and birth defects.

The FMH 2013 Community Health Needs Assessment reported on page 37 the number of admissions in FY12 for diabetes or endocrine disease and the percent of those admissions by race.



Data Source: Maryland Health Services Cost Review Commission (HSCRC); Maryland SHIP Obj. 27.

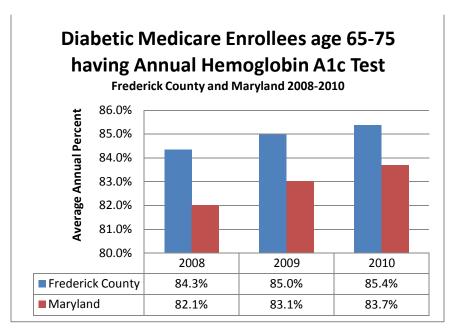
In Frederick County, the rate of emergency department (ED) visits due to diabetes (per 100,000 population) has increased from 199.7 in 2010 to 227.7 in 2011.

In 2010, the rate of ED visits due to diabetes (per 100,000 population) was lower in Frederick (199.7) than Maryland (316.0). In 2011, Frederick County's ED visits due to diabetes climbed to 227.7 (per 100,000 population) while Maryland dropped slightly to 314.6 visits.

Frederick County is well within the Maryland 2014 SHIP target of 300.2 or fewer ED visits due to diabetes (per 100,000 population).

# Medicare Diabetes Patients who had Annual Hemoglobin A1c Test

This indicator is important because engaging in preventive behaviors allows for early detection and treatment of health problems. This indicator can also highlight a lack of access to preventive care, a lack of health knowledge, insufficient provider outreach, and/or social barriers which may be preventing utilization of services.



Data Source: The Dartmouth Atlas of Healthcare, <a href="http://www.dartmouthatlas.org/tools/downloads.aspx">http://www.dartmouthatlas.org/tools/downloads.aspx</a> Accessed 10/8/13

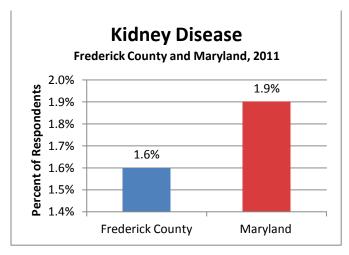
In Frederick County from 2008-2010, the percentage of Medicare patients with diabetes having an annual hemoglobin A1c test has increased each year. In 2010, 85% of Medicare patients with diabetes had an annual hemoglobin A1c test.

From the period of 2008-2010, a greater percentage of Medicare patients with diabetes had an annual hemoglobin A1c test in Frederick County than in Maryland. In both Frederick County and in Maryland, the percentage of Medicare patients with diabetes having an annual hemoglobin A1c test has increased each year. In 2010 in Frederick County, 85% of Medicare patients with diabetes had an annual hemoglobin A1c test compared to 84% of Medicare patients with diabetes in Maryland. For those persons with diabetes who have Medicare coverage, A1c testing is covered, which likely increases compliance.

# **Kidney Disease**

Kidney disease, especially chronic or long-term kidney disease, is a major source of poor quality of life and high medical costs. This measure is important to track as an indicator of progress made in reducing a significant cause of death, disability, and medical expenses in the United States.

# Frederick County Health Department Community Health Assessment, January 2014



Source: BRFSS, Question: KIDNEY DISEASE: EVER TOLD YOU HAD KIDNEY DISEASE? DO NOT INCLUDE KIDNEY STONES, BLADDER INFECTION OR INCONTINENCE

The percent of Frederick and Maryland residents reporting kidney disease is about the same in 2011, the only year for which data is available, at just under 2%.

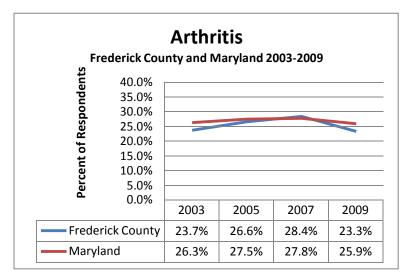
# **Arthritis**

Arthritis affects 1 in 5 adults and continues to be the most common cause of disability. It costs more than \$128 billion per year. All of the human and economic costs are projected to increase over time as the population ages.

Arthritis is the most common cause of disability. Tracking these arthritis measures, especially the impact on work is important as an indicator of progress in improving physical activity and quality of life for persons with arthritis.

There are interventions that can reduce arthritis pain and functional limitations, but they remain underused. These include:

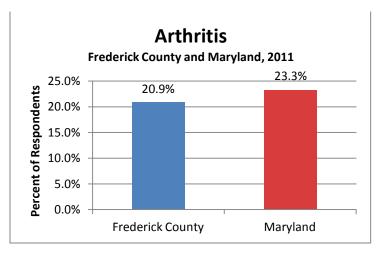
- Increased physical activity
- Self-management education
- Weight loss among overweight/obese adults



Source: BRFSS, Question: ARTHRITIS: BEEN TOLD BY A DOCTOR, THAT YOU HAVE ARTHRITIS, RHEUMATOID ARTHRITIS, GOUT, LUPUS, OR FIBROMYALGIA?

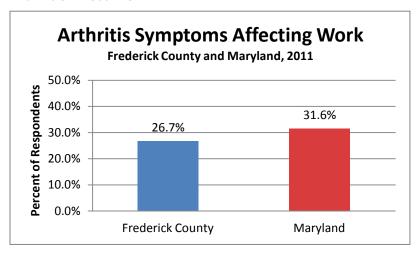
The percent of persons in Frederick County reporting that they have arthritis, rheumatoid arthritis, gout, lupus or fibromyalgia has remained steady since 2003. The percent in 2011 was 21%.

A slightly smaller percent of residents in Frederick County report those conditions than Maryland residents.



Source: BRFSS, Question: ARTHRITIS: BEEN TOLD BY A DOCTOR, THAT YOU HAVE ARTHRITIS, RHEUMATOID ARTHRITIS, GOUT, LUPUS, OR FIBROMYALGIA?

### **Arthritis Affect Work**



Source: BRFSS, Question: ARTHRITIS: DO ARTHTRITIS OR JOINT SYMPTOMS NOW AFFECT WHETHER YOU WORK, THE TYPE OF WORK YOU DO, OR THE AMOUNT OF WORK YOU DO?

A slightly smaller percent of Frederick County residents report that arthritis joint symptoms affect their work than Maryland residents.

# **Disability & Secondary Conditions**

The U.S. Census 2000 counted 49.7 million people with some type of long-lasting condition or disability. An individual can get a disabling impairment or chronic condition at any point in life. Disability is part of human life, and an impairment or condition does not define individuals, their health, or their talents and abilities.

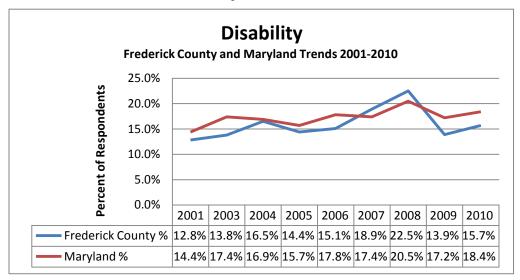
People with disabilities play an important and valued role in every community. All people, including people with disabilities, must have the opportunity to take part in important daily activities that add to a person's growth, development, fulfillment, and community contribution.

### Why Is Disability and Health Important?

The largest set of U.S. health data for people with disabilities, DATA2010, measures health at the population level. These data highlight improvements in health over the previous decade and clearly reveal specific health disparities for people with disabilities. Compared with people without disabilities, people with disabilities are more likely to:

- Experience difficulties or delays in getting the health care they need.
- Not have had an annual dental visit.
- Not have had a mammogram in past 2 years.
- Not have had a Pap test within the past 3 years.
- Not engage in fitness activities.
- Use tobacco.
- Be overweight or obese.
- Have high blood pressure.
- Experience symptoms of psychological distress.
- Receive less social-emotional support.
- Have lower employment rates.

**Activities Limited due to Disability** 

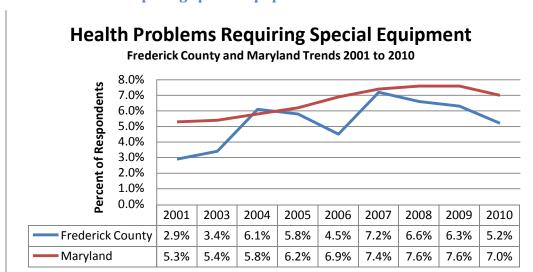


Source: BRFSS Data, Question: DISABILITY: ARE YOUR ACTIVITIES LIMITED DUE TO PHYSICAL, MENTAL, OR EMOTIONAL PROBLEMS?

The percent of Frederick County residents reporting activities being limited due to physical, mental or emotional problems has gone up and down between 13% and 22% in the last ten year, but the trend overall hasn't gone up or down.

For the past 10 years fewer Frederick County residents have reported activities being limited compared to Maryland residents with the except of 2007 and 2008.

**Health Problems Requiring Special Equipment** 



Source: BRFSS Data, Question: DO YOU HAVE ANY HEALTH PROBLEM THAT REQUIRES YOU TO USE SPECIAL EQUIPMENT?

The percent of Frederick County residents reporting that they need to use special equipment because of a health problem has gone up and down over the last 10 years with the overall trend showing an increase in the percent with the 2011 percent being 5.5%.

The percent of Frederick County residents reporting that they need to use special equipment has been lower than the percent of Marylanders with the exception of one year.

This indicator is important for many reasons. Knowing the percent of persons who rely on special equipment due to a medical condition has implications for planning for sheltering and evacuation purposes. It is also significant as it has implications for of the amount of community supports needed from medical, transportation, and other providers.

# **Adults Experiencing Confusion** Frederick County and Maryland, 2011 Percent of Respondents 100.0% 95.0% 90.0% 85.0% 80.0% 75.0% % % Frederick County Maryland FOUR OR MORE 0.1% TWO 0.7% ONE 13.5% 8.4%

86.5%

# **Cognitive Impairment**

Source: BRFSS Data, Question: HOW MANY ADULTS 18 OR OLDER IN YOUR HOUSEHOLD EXPERIENCED CONFUSION OR MEMORY LOSS THAT IS HAPPENING MORE OFTEN OR IS GETTING WORSE DURING THE PAST 12 MONTHS?

90.8%

More Frederick County residents than Maryland respondents reported adults in the household experiencing confusion that is happening more often or getting worse in the past 12 months. This is significant as worsening or more frequent cognitive impairment leads to safety, health, and social concerns and support needs.

# **Respiratory Diseases**

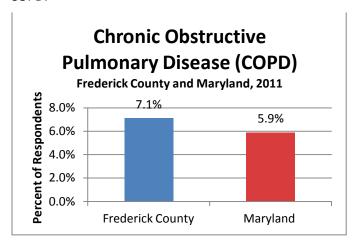
NONE

Currently in the United States, more than 23 million people have asthma. Approximately 13.6 million adults have been diagnosed with chronic obstructive pulmonary disease (COPD), and an approximately equal number have not yet been diagnosed. The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states. Because of the cost to the health care system, the burden of respiratory diseases also falls on society; it is paid for with higher health insurance rates, lost productivity, and tax dollars. Annual health care expenditures for asthma alone are estimated at \$20.7 billion.

The FMH 2013 Community Health Assessment reported o page 37 the number of admissions for lung disease in FY12 and the percent of those admissions by race.

### **COPD**

Chronic Obstructive Pulmonary Disease (COPD) is a preventable and treatable disease characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases (typically from exposure to cigarette smoke). Treatment can lessen symptoms and improve quality of life for those with COPD.



Source: BRFSS, Question: CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): EVER BEEN TOLD BY A DOCTOR YOU HAVE COPD?

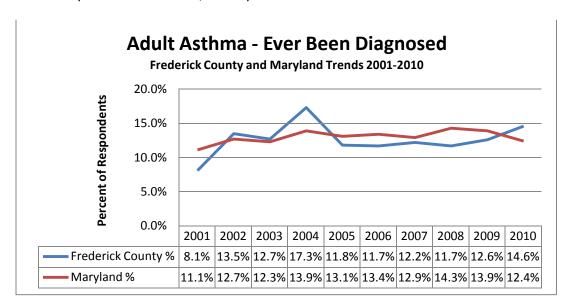
In 2011, Frederick County had a higher percentage of individuals told by their doctors that they have COPD than Maryland.

COPD causes a significant percent of people with the disease to reduce their activities and it is also is the reason for many emergency room visits.

### **Adult Asthma**

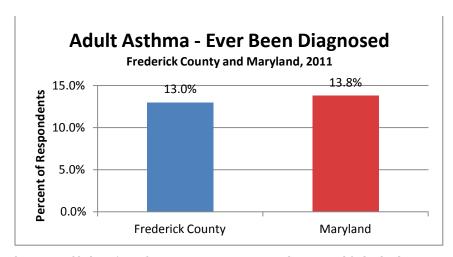
Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. Daily preventive treatment can prevent symptoms and attacks and enable individuals who have asthma to lead active lives.

The FMH 2013 Community Health Assessment on page 19 reports the rate of emergency department visits due to asthma in 2010 and 2011. Frederick County's rate in those years was already below the 2014 SHIP target.



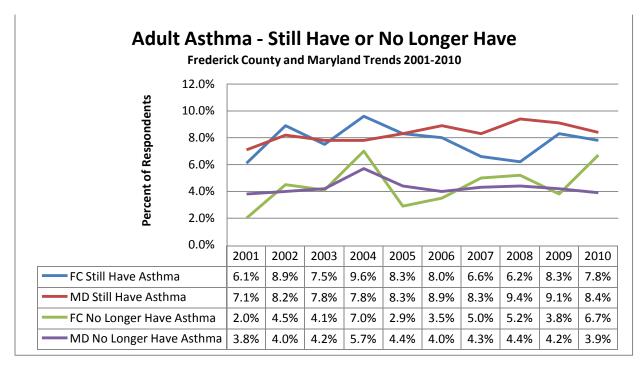
Source: BRFSS, Question: ASTHMA-ADULT: EVER BEEN TOLD BY A DOCTOR OR OTHER HEALTH PROFESSIONAL THAT YOU HAD ASTHMA?

Between 2005 and 2009, Frederick County has had a lower percentage of adults ever diagnosed asthma than Maryland.



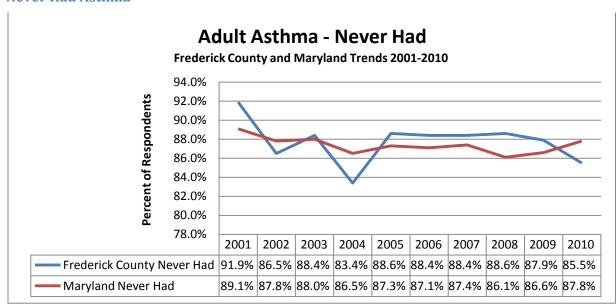
Source: BRFSS, Question: ASTHMA-ADULT: EVER BEEN TOLD BY A DOCTOR OR OTHER HEALTH PROFESSIONAL THAT YOU HAD ASTHMA?

In 2011, Maryland had a slightly higher percentage than Frederick County (13.8% vs. 13%).



Source: BRFSS, Question: ASTHMA-ADULT: DO YOU STILL HAVE ASTHMA? INCLUDE: NEVER HAD ASTHMA

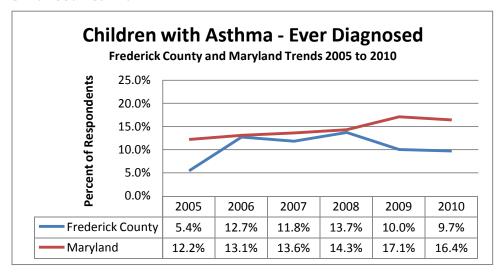
### **Never Had Asthma**



Source: BRFSS, Question: ASTHMA-ADULT: DO YOU STILL HAVE ASTHMA? INCLUDE: NEVER HAD ASTHMA

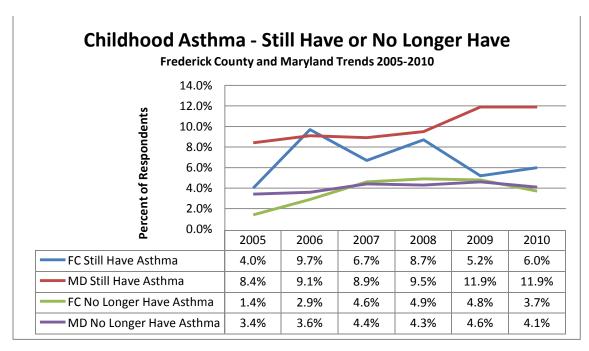
Between 2001 and 2011, the percentage of adults who have never been diagnosed with asthma decreased from 91.9% to 85.5%.

### **Childhood Asthma**



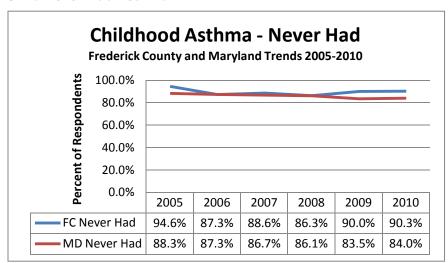
Source: BRFSS, Question: ASTHMA-CHILDHOOD: DOCTOR EVER DIAGNOSED CHILD WITH ASTHMA?

Between 2005 and 2010, Frederick County has consistently had a lower percentage of children ever diagnosed with asthma than Maryland.



Source: BRFSS, Question: ASTHMA-CHILDHOOD: DOES THE CHILD STILL HAVE ASTHMA? INCLUDE: NEVER HAD ASTHMA

**Child Never Had Asthma** 



Source: BRFSS, Question: ASTHMA-CHILDHOOD: DOES THE CHILD STILL HAVE ASTHMA? INCLUDE: NEVER HAD ASTHMA

Between 2005 and 2010, the percentage of children in Frederick County who never had asthma decreased from 94.6% to 90.3%. Between 2005 and 2010, Frederick County has had a higher percentage of children who never had asthma than Maryland.

Frederick County Health Department Community Health Assessment, January 2014

### **CANCER**

Continued advances in cancer research, detection, and treatment have resulted in a decline in both incidence and death rates for all cancers. Among people who develop cancer, more than half will be alive in 5 years. Yet, cancer remains a leading cause of death in the United States, second only to heart disease.

Many cancers are preventable by reducing risk factors such as:

- Use of tobacco products
- Physical inactivity and poor nutrition
- Obesity
- Ultraviolet light exposure

Other cancers can be prevented by getting vaccinated against human papillomavirus and hepatitis B virus.

Screening is effective in identifying some types of cancers, including:

- Breast cancer (using mammography)
- Cervical cancer (using Pap tests)
- Colorectal cancer (using fecal occult blood testing, sigmoidoscopy, or colonoscopy)

In an era of patient-centered care, it is critical to assess whether people understand and remember the information they receive about cancer screening. Research shows that a recommendation from a health care provider is the most important reason patients cite for having cancer screening tests.

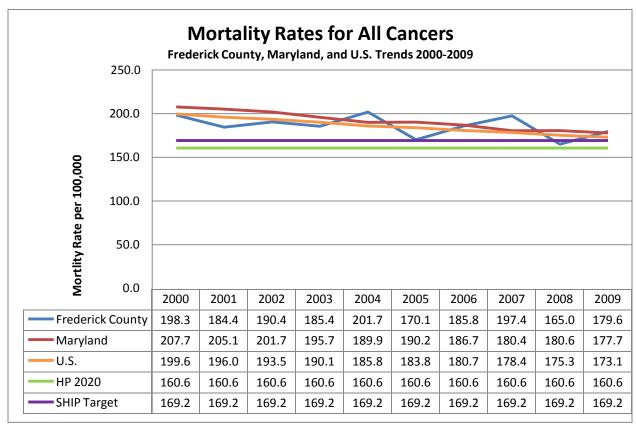
For cancers with evidence-based screening tools, early detection must include the continuum of care from screening to appropriate follow-up of abnormal test results and referral to cancer treatment.

The FMH 2013 Community Health Needs Assessment reported on page 21 the incidence of different types of cancers at FMH by primary site and gender for the cases in 2011.

The FMH 2013 Community Health Assessment reported on page 37 the number of admissions for cancer or neoplasm in FY12 and the percent of those admissions by race.

# **Cancer Mortality Rates**

# **All Cancer**

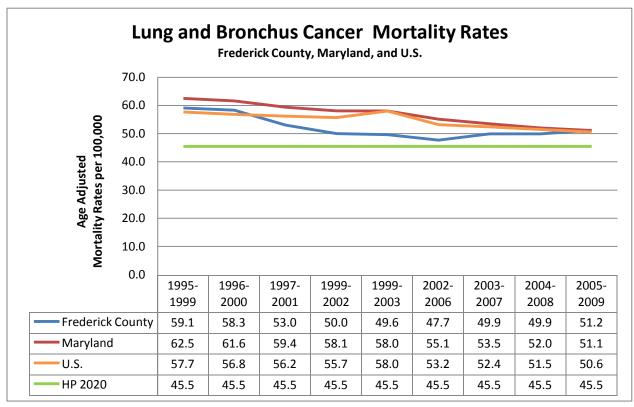


Source: Maryland Cancer Report; Healthy People 2020 C-1; Maryland SHIP Obj. 26. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

Both Frederick County and Maryland have seen a decline in the mortality rate for all cancers. In 2009, the Frederick County mortality rate of 179.6 for all cancers is slightly higher than the Maryland rate of 177.7.

Frederick County did not meet the Healthy People 2020 goal which is to reduce the overall cancer death rate to 160.6 or below. Frederick County also did not meet the MD SHIP goal of reducing the overall cancer death rate to 169.2.

**Lung/Bronchus Cancer** 

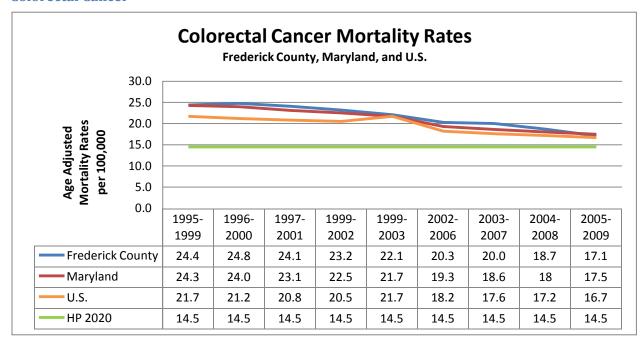


Source: Maryland Cancer Report; Healthy People 2020 C-2. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From 1995-2009, the age-adjusted lung and bronchus cancer mortality rate was higher in Maryland than in Frederick County, with the exception of the most recent aggregated years 2005-2009 when the Frederick County mortality rate was slightly higher than the Maryland rate and both were above the mortality rate for the U.S. The lung and bronchus mortality rates for Frederick, Maryland and the U.S. decreased between the grouped years spanning 1995 and 2009.

For the period from 2005-2009, neither Frederick County (51.2) nor Maryland (51.1) met the Healthy People 2020 goal, which is to reduce the lung cancer death rate to 45.5 or below.

## **Colorectal Cancer**

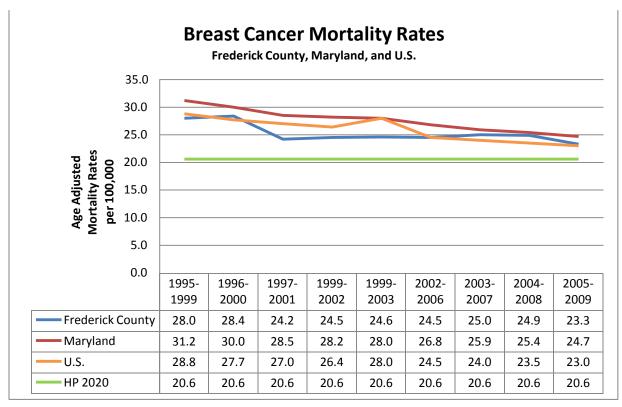


Source: Maryland Cancer Report; Healthy People 2020 C-5. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

Both Frederick County and Maryland have seen a significant decline in colon cancer mortality rates over time. During the period between 1995 and 2008, the age-adjusted colon cancer mortality rate was higher in Frederick County than Maryland, until the most current years for which data is available. For the period from 2005-2009, Frederick County had a slightly lower colorectal cancer mortality rate (17.1) than Maryland (17.5).

From 2005-2009, neither Frederick County (17.1) nor the State (17.5) met the Healthy People 2020 goal, which is to reduce the colorectal cancer death rate to 14.5 or less.

## **Breast Cancer**

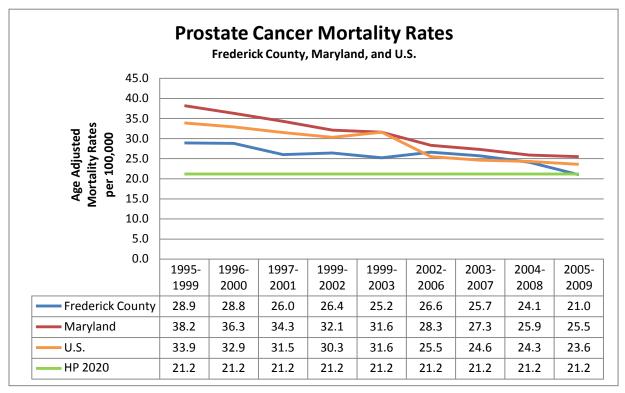


Source: Maryland Cancer Report; Healthy People 2020 C-3. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From 1995 to 2009, the age-adjusted breast cancer mortality rate was higher in Maryland than in Frederick County. Breast cancer mortality rates for Frederick County, Maryland, and the U.S declined between the grouped years spanning 1995 and 2009.

For the period from 2005-2009, neither Frederick county (23.3) or Maryland (24.7) met the Healthy People 2020 goal, which is to lower the age-adjusted breast cancer mortality rate to 20.6 or below.

## **Prostate Cancer**



Source: Maryland Cancer Report; Healthy People 2020 C-7. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From 1995 to 2009, the age adjusted prostate cancer mortality rates for Frederick County and Maryland have declined but the rate in Frederick County has remained lower than Maryland.

For the period from 2005-2009, Frederick County (21.0) met the Healthy People 2020 goal to reduce the prostate cancer death rate to 21.2 or below.

Oral Cancer

Age-adjusted Mortality Rates for Oral Cancer

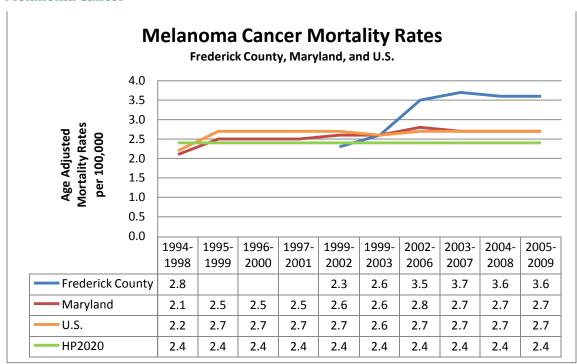
	2002- 2006	2003- 2007	2004- 2008	2005- 2009
Frederick	1.8	Not	Not	Not
County		Reported	Reported	Reported
Maryland	2.7	2.6	2.6	2.6
U.S.	2.6	2.5	2.5	2.5
HP 2020	2.3	2.3	2.3	2.3

Source: Maryland Cancer Report; Healthy People 2020 C-6. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From 2003-2009, there is no oral cancer mortality data available for Frederick County. This is because mortality rates based on death counts of 0-19 are suppressed per DHMH/CCSC Mortality Data

Suppression policy. The most recently reported data for Frederick County is from 2002-2006, at which time the Frederick County age-adjusted mortality rate for oral cancer was 1.8, meeting the Healthy People 2020 goal by being less than 2.3.

### **Melanoma Cancer**



Source: Maryland Cancer Report; Healthy People 2020 C-8. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

Frederick County and Maryland mortality rates for melanoma cancer have been on the rise since 1999. The most current Frederick County mortality rate for the years of 2005-2009 was 3.6 for melanoma cancer, which was higher than the Maryland and the U.S. rate of 2.7.

For the period from 2005-2009 neither Frederick county (3.6) nor the State (2.7) met the Healthy People 2020 goal, which is to reduce the melanoma cancer death rate to 2.4 or below.

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## **Cervical Cancer**

# **Age-adjusted Mortality Rates for Cervical Cancer**

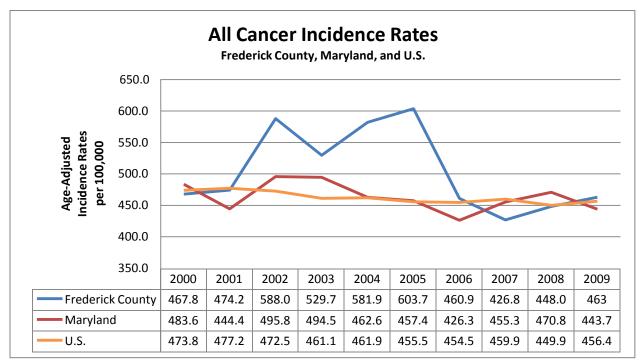
	2002- 2006	2003- 2007	2004- 2008	2005- 2009
Frederick				
County	3.2	N/A	N/A	N/A
Maryland	2.2	2.2	2.3	2.3
U.S.	2.5	2.4	2.4	2.4
HP 2020	2.2	2.2	2.2	2.2

Source: Maryland Cancer Report; Healthy People 2020 C-4. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From 2003-2009, there is no cervical cancer mortality data available for Frederick County. This is because mortality rates based on death counts of 0-19 are suppressed per DHMH/CCSC Mortality Data Suppression policy. The most recently reported data for Frederick County is from 2002-2006, at which time the Frederick County age-adjusted mortality rate for cervical cancer was 3.2 and did not meet the Healthy People 2020 goal of 2.2.

## **Cancer Incidence Rates**

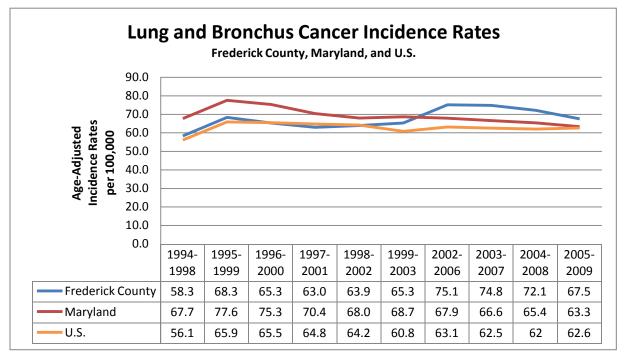
## **All Cancer**



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

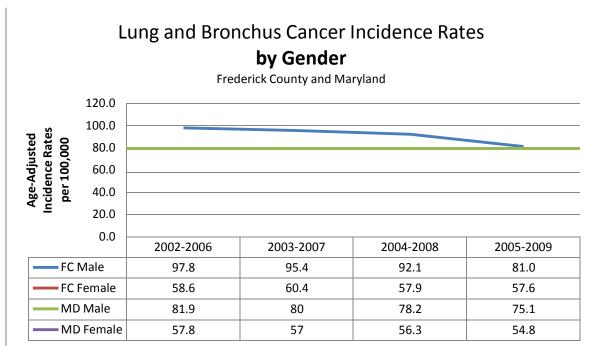
From 2000-2009, all cancer age-adjusted incidence rates for Frederick County and Maryland have slightly declined. In Maryland, all cancer incidence rates have been lower than in Frederick County with the exception of 2000, 2007, and 2008. In 2009, the all cancer incidence rate in Frederick County was 463 compared to 443.7 in Maryland.

**Lung/ Bronchus Cancer** 



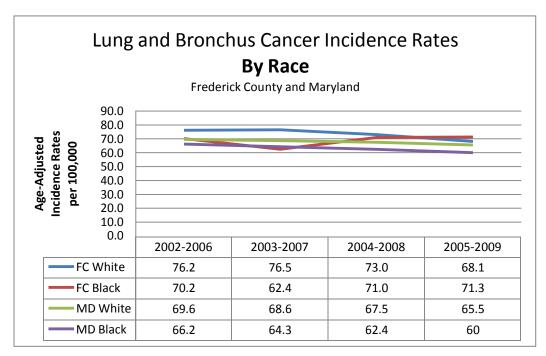
Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From 1994-2002, the age-adjusted lung and bronchus cancer incidence rates were lower in Frederick County than in Maryland. Since 2002, the Frederick County rates have been higher than the Maryland rates. Frederick County's incidence rate was lower than the U.S rate in only three periods, 1996-2000, 1997-2001, and 1998-2002.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

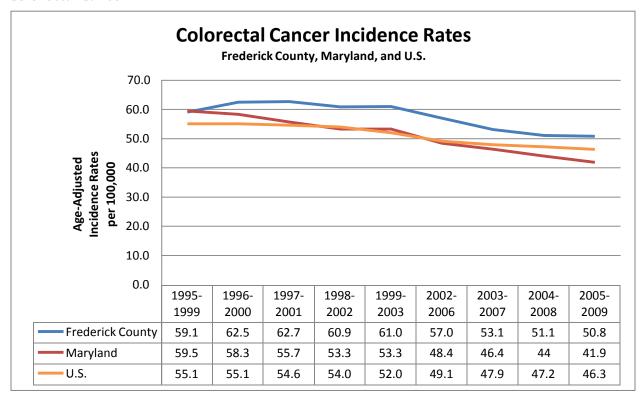
From 2002-2009, the age-adjusted lung and bronchus cancer incidence rates have remained higher among males than females in both Frederick County and Maryland. The incidence rate for Frederick males decreased significantly in that period. The incidence rates of lung and bronchus cancer were higher for Frederick County males and females than Maryland males and females for the time periods shown.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

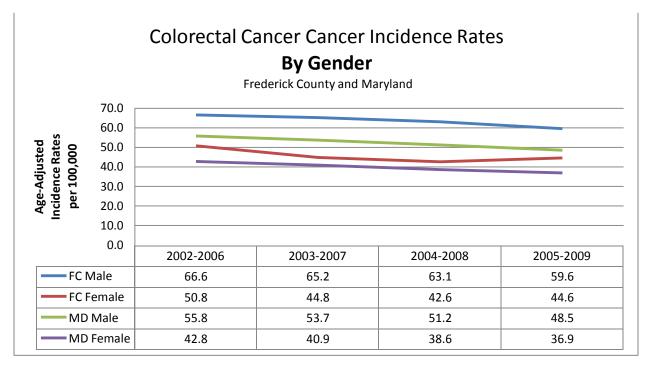
For the grouped years shown for the period 2002-2009 in Frederick County, the age-adjusted lung and bronchus cancer incidence rate was higher for Whites than Blacks and those rates were higher than Maryland's. The rates decreased over the time periods shown for all groups except for Blacks in Frederick County.

## **Colorectal Cancer**



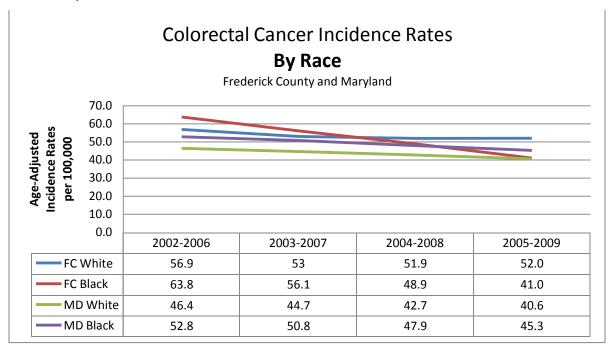
Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

Frederick County has seen a decreasing trend in the age-adjusted incidence rate for colorectal cancer as has Maryland and the U.S. Except for the first time period, 1995-1999, the incidence rate was higher in Frederick County than Maryland. Frederick County's incidence rate was higher than the U.S. rate for all time periods shown.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

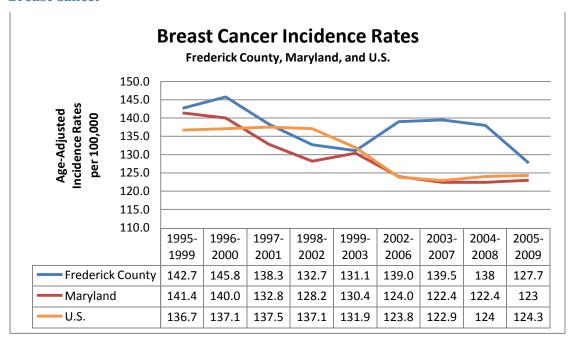
Incidence rates appear to be declining for males and females in Frederick County and Maryland during the time periods shown. Males in both Maryland and Frederick County have had a higher age-adjusted incidence rate of colorectal cancer than females. The incidence rate is higher in Frederick than Maryland for all time periods shown.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

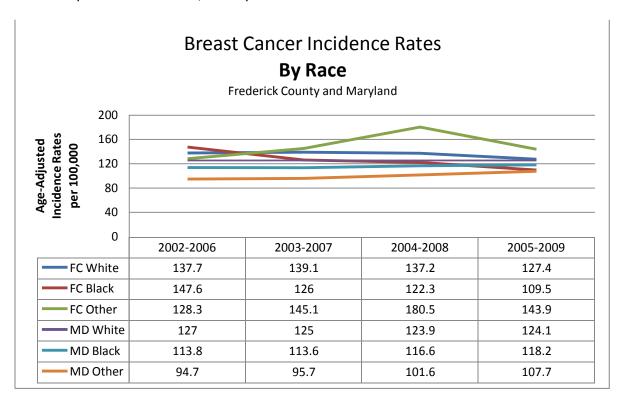
From the grouped years 2002-2006 to 2005-2009, the incidence rate decreased for all groups shown, but that rate for Frederick County Blacks decreased so much that the rate in 2005-2009 was lower than Whites. The incidence rates Whites and Blacks for the time periods shown were higher in Frederick County than in Maryland except for 2005-2009 when Blacks in Frederick County had a lower incidence rate than Blacks in Maryland.

### **Breast Cancer**



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

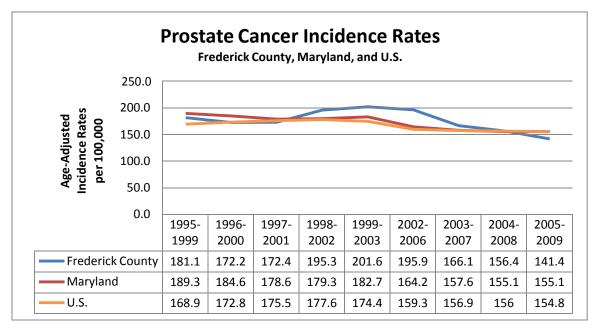
For the time periods shown the incidence rate of breast cancer trended downward for Frederick County, Maryland, and the U.S. Frederick County's incidence rate was higher than Maryland's rate for all time periods shown and was higher than the U.S rate for the periods shown except for the grouped years 1998-2002 and 1999-2003.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

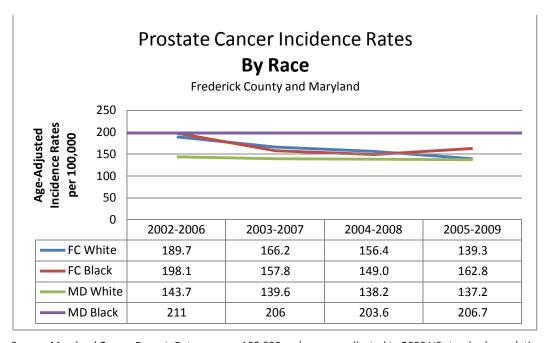
The incidence rate of breast cancer decreased for Frederick County Whites and Blacks as did Maryland Whites. The greatest decrease observed was for Frederick County Blacks. The incidence rates increased during the same time periods for those reported as Frederick County Other, Maryland Blacks, and Maryland Others.

## **Prostate Cancer**



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

The incidence rate for prostate cancer decreased for the time periods shown for Frederick County, Maryland, and the U.S. trended down. Frederick County's incidence rate was lower than Maryland's in the grouped years 1996-2000, 1997-2001, and 2005-2009.



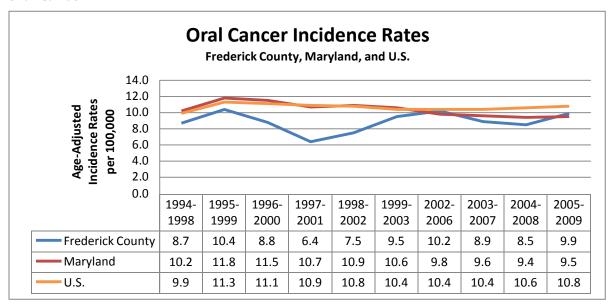
 $Source: Maryland\ Cancer\ Report.\ Rates\ are\ per\ 100,000\ and\ are\ age-adjusted\ to\ 2000\ US\ standard\ population.$ 

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The overall incidence rates decreased for both Whites and Blacks in Frederick County and Maryland over the time periods shown. While the prostate cancer incidence rates in Frederick County were lower for Blacks than Whites for the grouped years 2003-2007 and 2004-2008, from 2005-2009 the rate was lower for Whites than Blacks

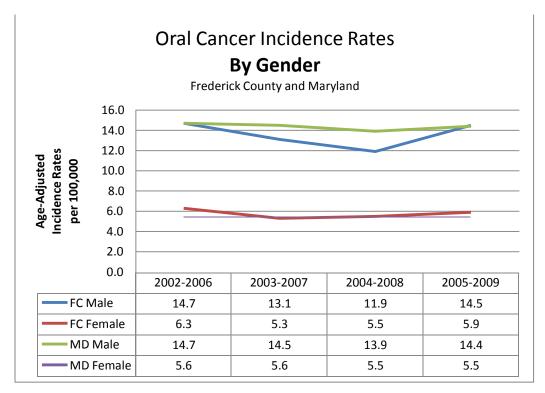
For the grouped years shown the incidence rates for prostate cancer in Maryland Blacks has consistently been higher than the incidence rates for Frederick County Blacks than Whites.

## **Oral Cancer**



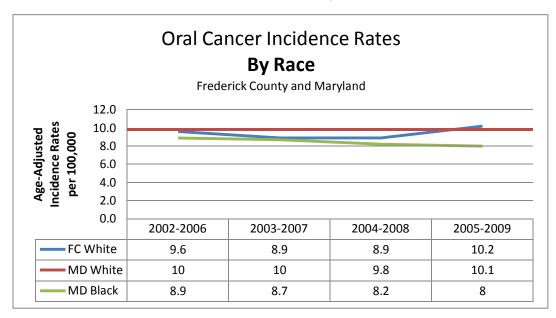
Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

Frederick County has seen an increase in the age adjusted incidence rate for oral cancer as has the U.S., but not Maryland.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

Males in Frederick County and Maryland have a much greater incidence of oral cancer compared to females who have about half the rate. Over the time periods shown, the rates have not changed much.

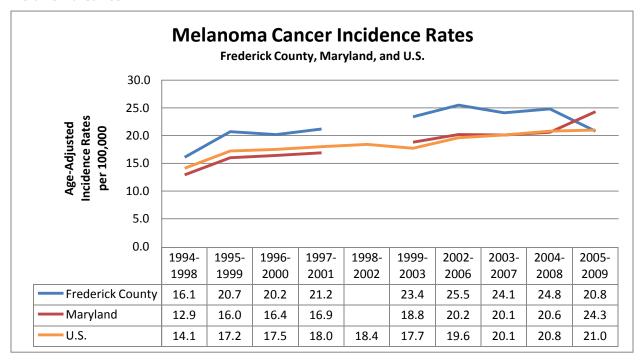


Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

The incidence rate for Frederick County Whites and Maryland Whites went up and down over the time periods shown. The incidence rate for Maryland Blacks trended downward over the time periods shown.

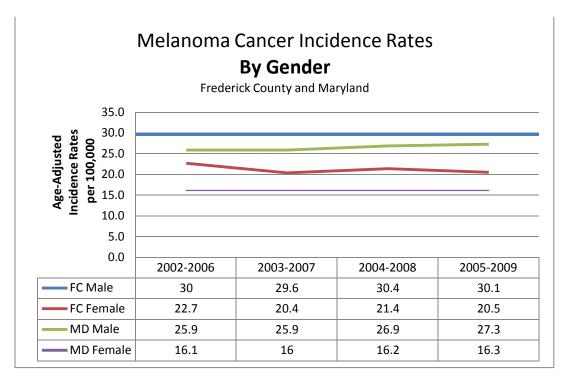
<sup>\*</sup>FC Black data excluded from graph because rates based upon case counts of 1-15 are suppressed per DHMH/MCR data use policy and procedures.

### **Melanoma Cancer**



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

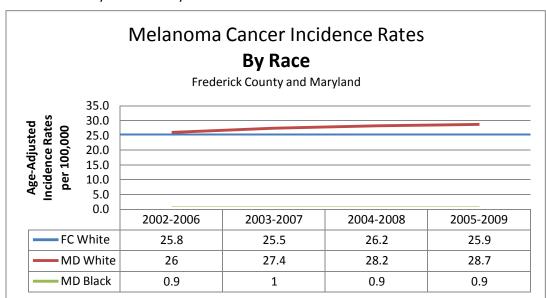
During the grouped years shown, 1994-2008, the incidence rates for melanoma cancer were higher in Frederick than Maryland. For the most current period of 2005-2009, the incidence rate of melanoma cancer was lower in Frederick County (20.8) than Maryland (24.3) and the U,S, (21.0).



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

The melanoma cancer incident rate has not changed much across the gouped years shown. From the grouped years shown, 2002-2009, the age-adjusted incidence rate of melanoma cancer in males was higher than females in both Frederick County and Maryland.

In those same years the incidence rates for Melanoma cancer among males and females were higher in Frederick County than in Maryland.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

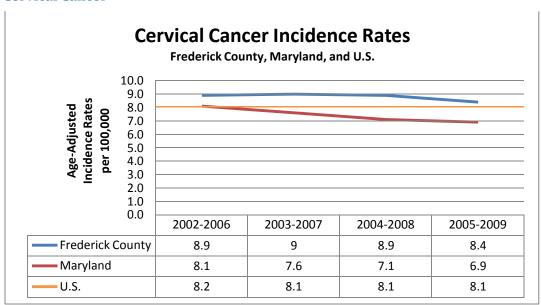
<sup>\*</sup>Frederick County Black data excluded because rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy and Procedures.

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From 2002-2009, the age-adjusted incidence rate of Melanoma cancer among Whites in Frederick County has not changed much. (Frederick County Black data is excluded because rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy and Procedures).

During the grouped years shown, the Frederick County incidence rate of Melanoma cancer among Whites was lower than the Maryland rate.

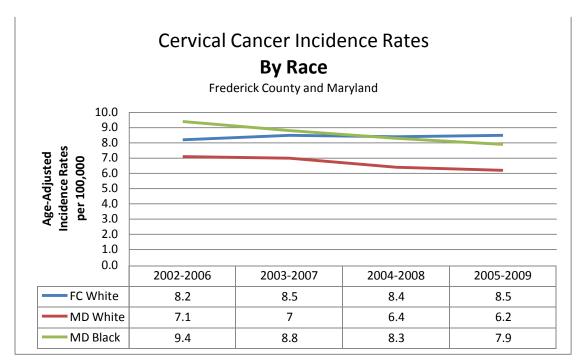
## **Cervical Cancer**



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From the grouped years shown, 2002-2009, the age-adjusted incidence rates of cervical cancer have been higher in Frederick County than in Maryland and the U.S.

The Frederick County rate did not decrease as much as the Maryland rate decreased in the same time period.



Source: Maryland Cancer Report. Rates are per 100,000 and are age-adjusted to 2000 US standard population.

From the grouped years shown, 2002-2009, the age-adjusted incidence rates of cervical cancer among Whites were higher in Frederick County than Maryland. (Frederick County Black data is excluded because rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy and Procedures). During the same years the rate for Frederick County Whites did not change much in contrast to the rate for Maryland Blacks which decreased from a rate above Frederick Whites to below Frederick Whites in the most recent grouped year period, 2005-2009.

<sup>\*</sup>Frederick County Black data excluded because rates based on case counts of 1-15 are suppressed per DHMH/MCR Data Use Policy and Procedures.

## INFECTIOUS DISEASE

The increase in life expectancy during the 20th century is largely due to improvements in child survival; this increase is associated with reductions in infectious disease mortality, due largely to immunization. However, infectious diseases remain a major cause of illness, disability, and death. Immunization recommendations in the United States currently target 17 vaccine-preventable diseases across the lifespan.

## Why Are Immunization and Infectious Diseases Important?

People in the United States continue to get diseases that are vaccine preventable. Viral hepatitis, influenza, and tuberculosis (TB) remain among the leading causes of illness and death in the United States and account for substantial spending on the related consequences of infection.

The infectious disease public health infrastructure, which carries out disease surveillance at the Federal, State, and local levels, is an essential tool in the fight against newly emerging and re-emerging infectious diseases. Other important defenses against infectious diseases include:

- Proper use of vaccines
- Antibiotics
- Screening and testing guidelines
- · Scientific improvements in the diagnosis of infectious disease-related health concerns

Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. Childhood immunization programs provide a very high return on investment. For example, for each birth cohort vaccinated with the routine immunization schedule (this includes DTap, Td, Hib, Polio, MMR, Hep B, and varicella vaccines), society:

- Saves 33,000 lives.
- Prevents 14 million cases of disease.
- Reduces direct health care costs by \$9.9 billion.
- Saves \$33.4 billion in indirect costs.

Despite progress, approximately 42,000 adults and 300 children in the United States die each year from vaccine-preventable diseases. Communities with pockets of unvaccinated and undervaccinated populations are at increased risk for outbreaks of vaccine-preventable diseases. In 2008, imported measles resulted in 140 reported cases—nearly a 3-fold increase over the previous year. The emergence of new or replacement strains of vaccine-preventable disease can result in a significant increase in serious illnesses and death.

## **Immunizations**

### **Influenza Vaccination**

It is estimated that 200,000 people are hospitalized annually and 36,000 people die each year from complications of influenza. Influenza is a vaccine preventable disease and influenza vaccine is and continues to be a cost-effective clinical prevention measure.

Frederick County Health Department strives together with other vaccination venues to increase the percentage of people vaccinated to meet or exceed the Healthy People 2020 goal of 80%. This will

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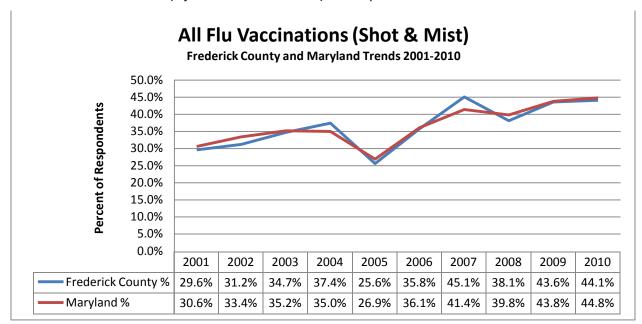
significantly decrease the amount of morbidity and mortality from influenza and influenza complications, such as pneumonia.

Decreasing illness related to influenza will increase productivity of our workforce and decrease absenteeism from school. The cost of a flu vaccine is minimal, and now with the Affordable Care Act, it is available at no cost for most people. The vaccine is available in both the injectable and intranasal form which helps to address the fear of needles as a barrier to getting vaccinated.

Additionally, influenza vaccine is now available in the intradermal route, high-dose formulation for the senior population, and for the 2013-2014 flu season in a quadrivalent formulation to help protect against more influenza virus strains.

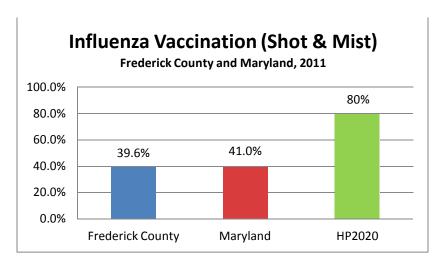
#### **Combined Flu Shot and Flu Mist**

Data from 2010 has demonstrated that more individuals living in Frederick County (44.1%) are getting their influenza vaccination (injectable and intranasal) as compared to 29.6% in 2001.



Source: BRFSS Data, combination of Questions: IMMUNIZATION: DURING THE PAST YEAR, HAVE YOU HAD A FLU SHOT? and IMMUNIZATION: DURING THE PAST YEAR, HAVE YOU HAD A FLU VACCINE SPRAYED IN YOUR NOSE?

In 2010, 44.1% of people surveyed in Frederick County received a flu vaccine compared to 44.8% for the state of Maryland. Since 2001, Frederick County data essentially mirrors that of Maryland and appears to be trending upward.



Source: BRFSS Data, Question: IMMUNIZATION: DURING THE PAST YEAR, HAVE YOU HAD EITHER A SEASONAL A FLU SHOT OR A FLU VACCINE SPRAYED IN YOUR NOSE?; Healthy People 2020 IID-12.5.

In 2011, 39.6% of individuals living in Frederick County reported receiving their influenza vaccination either injectable or intranasal. The percentage of individuals who reported receiving an influenza vaccination was slightly lower in Frederick County (39.6%) than Maryland (41.0%).

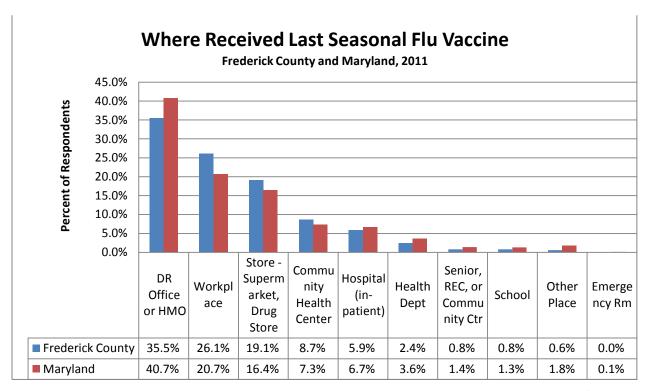
Healthy People 2020 set a goal of 80% flu vaccination rate despite vaccination now being recommended for persons of all ages and medical conditions. Although Frederick County has definitely improved in flu vaccination rates since 2001, we still lag significantly behind the Healthy People 2020 goal. This demonstrates that Public Health has a continued challenge in educating the public regarding the importance of receiving an annual flu vaccine and addressing possible barriers that prevent people from receiving their flu vaccine.

It is important to note that the significant decline in percentage of individuals who received a flu vaccine in 2005 was directly related to the nationwide shortage of flu vaccine experienced during the 2004-2005 flu season. In 2003, intranasal flu vaccine was introduced giving people, for the first time, an option of receiving an injectable or intranasal flu vaccine. You will note an increase, in 2007, in the number of people who indicated they received a flu vaccine. This may correlate to the fact that the intranasal flu vaccine, which was initially available to individuals 5-49 years of age, was approved for people 2-49 years of age. However, the injectable type of flu vaccine remains most popular with 96.7% of those surveyed having received the injectable vaccine in 2010.

Influenza vaccine continues to be a cost effective prevention measure. Generally it is produced in quantities to meet demand and is readily available in communities.

## Where Got Last Seasonal Flu Vaccine

In Frederick County the majority, 35.5% of those surveyed, received their flu vaccine at a doctor's office/HMO. Workplace vaccination programs provided vaccines to 26.1%. Additionally, 19.1% received their vaccine at stores, supermarkets or drug stores. Only 2.4% of the individuals surveyed received a flu vaccine at a health department. Other locations included community clinics, senior centers, schools and hospitals.

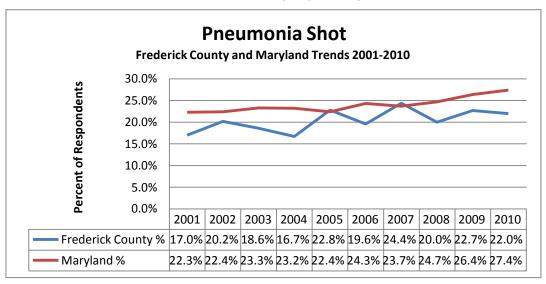


Source: BRFSS, Question: IMMUNIZATION: AT WHAT KIND OF PLACE DID YOU GET YOUR LAST SEASONAL FLU VACCINE?

### **Pneumonia Vaccination**

Pneumonia is a vaccine preventable respiratory infection that can cause significant morbidity and mortality especially in adults 65 years of age and older. Pneumonia is a serious health threat that can lead to death. Many of the strains of pneumonia are resistant to currently used antibiotics.

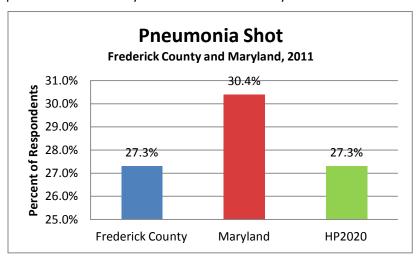
In the U.S. alone, more people die from pneumonia each year than all other vaccine-preventable diseases combined. Vaccination is the best way to prevent pneumonia.



Source: BRFSS Data, Question: IMMUNIZATION: HAVE YOU EVER HAD A PNEUMONIA SHOT, ALSO CALLED PNEUMOCOCCAL VACCINE?

The data demonstrates that Frederick County and Maryland have seen a steady increase in the number of individuals who have received a vaccine for pneumonia at some point in their life. In 2010, 22.0% of those surveyed indicated they receive a pneumonia vaccine compared to 17% in 2001.

From 2001 to 2010, fewer Frederick County residents reported having been vaccinated against pneumonia than Maryland residents for most years.



Source: BRFSS Data, Question: IMMUNIZATION: HAVE YOU EVER HAD A PNEUMONIA SHOT, ALSO CALLED PNEUMOCOCCAL VACCINE?; Healthy People 2020 IID-13.2.

In 2011, 30.4% of individuals living in Maryland reported being vaccinated for pneumonia compared to Frederick County at 27.3%, which is exactly the established Healthy People 2020 goal.

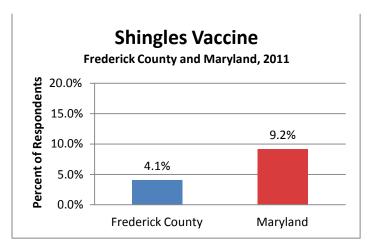
## **Shingles Vaccination**

Almost 1 of every 3 people in the United States will develop shingles, also known as zoster or herpes zoster. There are an estimated 1 million cases each year in this country. Anyone who has recovered from chickenpox may develop shingles; even children can get shingles. However the risk of disease increases as a person gets older. About half of all cases occur among men and women 60 years old or older. It is estimated that half of persons living until age 85 years will develop shingles.

Shingles, caused by the varicella zoster virus, cannot be passed from one person to another. However the virus that causes shingles can be spread from a person with active shingles to a person who has never had chickenpox thus causing that individual to develop chickenpox.

The only way to reduce the risk of developing shingles and lessen the severity of the illness if you do contract shingles is to get vaccinated. The vaccine is licensed for persons aged 50 years and older however; the CDC recommends this vaccine for people aged 60 and older.

This is an expensive vaccine. At this time, Medicare Part B does not cover the cost of this vaccine however third-party insurance companies may cover this cost of this vaccine. Additionally, the vaccine must be kept frozen prior to use some health care providers practices do not administer enough Zostavax to justify keeping it in stock.



Source: BRFSS Data, Question: SHINGLES: A SHINGLES VACCINE FOR SHINGLES HAS BEEN AVAILABLE SINCE MAY 2006; IT IS CALLED ZOSTAVAX, ZOSTER VACCINE OR SHINGLES VACCINE. HAVE YOU HAD THIS VACCINE?

In 2011, 9.2% of Marylanders indicated they have received a shingles vaccine compared to 4.1% in Frederick County.

# **Recent Tetanus Shot was Pertussis or Whooping Cough Vaccine**

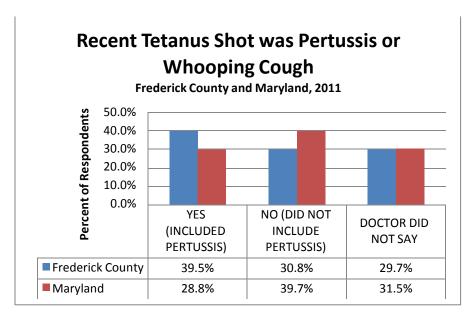
Pertussis, often called whooping cough, is a vaccine preventable disease. Pertussis is caused by a bacterium that is a very contagious. In 2010, 27,550 cases of pertussis were reported in the United States; 3,350 of those cases were in infants younger than 6 months of age — 25 of those infants died. Studies have shown that when the source of pertussis was identified, mothers were responsible for 30–40% of infant infections.

Babies begin getting vaccinated against pertussis at 2 months of age. It generally takes up to age 6 months before they develop adequate immunity. It is also now understood that immunity against pertussis obtained by childhood immunizations wean as the child grows up. In 2005, Tdap vaccine was licensed for use in the United States. Currently a one-time dose of Tdap is recommended beginning at age 11.

Pertussis can cause serious and sometimes life-threatening complications in infants, especially within the first 6 months of life. In infants younger than 1 year of age who get pertussis, more than half must be hospitalized. The younger the infant, the more likely treatment in the hospital will be needed. Of those infants who are hospitalized with pertussis about 1 in 5 will get pneumonia and 1 in 100 will die.

Tdap vaccine is recommended for pregnant women, during each pregnancy, between the 27<sup>th</sup> through 36<sup>th</sup> week of pregnancy for early short-term protection of the infant since vaccination of infants doesn't begin until age 2 months. Breastfeeding is fully compatible with Tdap vaccination, and preventing pertussis in mothers can reduce the chance that the infant will get pertussis. Also, by breastfeeding, mothers can pass antibodies they've made in response to the Tdap shot on to their infants, which may reduce an infant's chances of getting sick with pertussis.

Individuals who can receive the Tdap vaccine should do so as this – especially those with babies too young to be fully vaccinated. Babies can be protected from pertussis by having those close to them vaccinated – this includes parents, grandparents and childcare providers. Babies do not have adequate immunity against pertussis until about 6 months of age and it is important to know that often it is the parent who infects the baby.



Source: BRFSS Data, Question: TETANUS DIPHTHERIA (ADULTS): DID YOUR DOCTOR SAY YOUR RECENT TETANUS SHOT WAS THE PERTUSSIS OR WHOOPING COUGH VACCINE?

Data from 2011 has demonstrated that when Frederick County residents obtained a tetanus shot 39.5% of doctors indicted that the vaccine also included coverage for pertussis or whooping cough. However 30.8% of Frederick County residents indicated that their doctors stated the tetanus vaccine did not include coverage for pertussis or whooping cough and 29.7% did not say whether it did or did not include coverage.

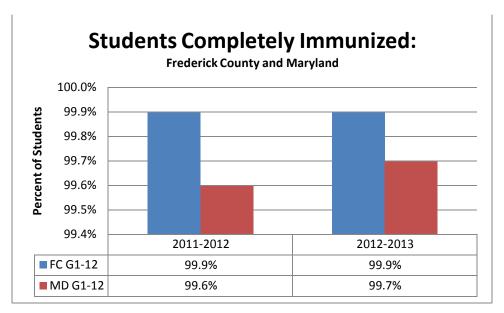
In 2011, more Frederick County residents who received the tetanus vaccine reported receiving the vaccine that included coverage for pertussis or whooping cough than Marylanders yet the percent for Frederick County and Maryland residents reporting that their doctor did say whether the vaccine included coverage for pertussis or whooping cough was about the same for both. Since the Tdap vaccine to protect against tetanus and pertussis is readily available in the marketplace it is difficult to identify why healthcare providers would administer a regular tetanus shot and not one with protection against pertussis.

## **Child Immunizations**

Vaccines are critical for the health of children. Diseases that are vaccine preventable such as pertussis, chickenpox, and measles can cause significant morbidity for children who are not vaccinated. This results in increased absenteeism which directly impacts the learning process.

# **Students Grades 1-12 Completely Immunized**

Data indicated that for both the 2011-2012 and 2012-2013 school seasons 99.9% of students in grades 1-12 in Frederick County were completely immunized with the required vaccines to attend school.



Data source: Maryland Department of Health and Mental Hygiene Center for Immunization

The Frederick County data and the Maryland data show the Maryland data is minimally lower than Frederick County.

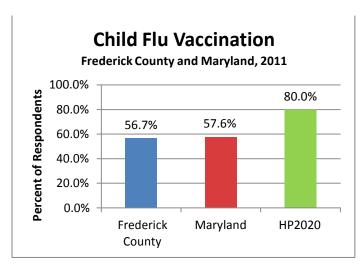
The Health Department, along with many community healthcare providers, have available Vaccines For Children (VFC) vaccines that can be utilized for those children who are underinsured, uninsured or who have medical assistance.

Additionally, each year 20% of private schools in Frederick County are surveyed and has consistently demonstrated a compliance rate with required vaccines of 98% or greater.

### **Child Flu Vaccination**

Influenza is a vaccine preventable disease which requires an annual vaccination. Although it may not provide 100% protection it will lessen the severity and symptoms associated with influenza. Children commonly need medical care because of influenza, especially before the age of five. Severe influenza complications are most common in children younger than two years old. Each year an average of 20,000 children under the age of five are hospitalized because of influenza complications. Unfortunately, children die from flu each year. Since 2004, pediatric deaths reported to the CDC during a regular flu season ranged from 35 deaths during the 2011-12 season to 122 deaths during the 2010-11 season. Influenza vaccine is the single best way to protect children from the flu.

By increasing the percentage of children vaccinated for influenza we provide increased protection for those who cannot be vaccinated such as infants younger than 6 months. Influenza vaccine decreases morbidity related to flu and its complications which impacts attendance at school and parental absenteeism from work.



Source: BRFSS, Question: CHILD IMMUNIZATIONS: DURING THE LAST 12 MONTHS, HAS YOUR CHILD HAD A SEASONAL FLU VACCINATION?; Healthy People 2020 IID-12.1 through 12.3.

According to the data for 2011, 56.7% of Frederick County respondents indicated that their child received a seasonal flu vaccination. The proportion of children who received flu shots in Maryland for 2011 is slightly higher (57.6%) than Frederick County (56.7%).

The vaccination rate for Frederick County and Maryland is significantly lower than the Healthy People 2020 goal of 80%. This could be due to many factors including distrust in vaccines, belief that the flu vaccine causes the flu and not believing children can get sick enough to require hospitalization and possible death.

## **Child Human Papilloma Virus Vaccination (HPV)**

Genital human papillomavirus (HPV) is the most common sexually transmitted virus in the United States. More than half of sexually active men and women are infected with HPV at some time in their lives. It is estimated that about 20 million Americans are currently infected, and about 6 million more get infected each year.

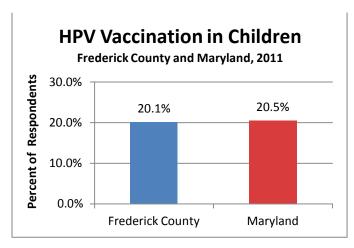
HPV can cause cervical cancer in women and cervical cancer is the 2<sup>nd</sup> leading cause of cancer deaths among women around the world. In the United States, about 12,000 women get cervical cancer each year and about 4,000 are expected to die from it.

HPV is also associated with several less common cancers, such as vaginal and vulvar cancers in women, and anal and oropharyngeal cancers in both men and women. HPV can also cause genital warts and warts in the throat.

There is no cure for HPV infection – prevention is the key.

The first of two HPV vaccines was licensed by the FDA on June 8, 2006. Since then it has become a recommended vaccine for both females and males. It is recommended to begin vaccination at age 11-12 years, but can begin vaccination as young as 9 years of age. It is recommended to vaccinate through age 26 years.

We still have much education to do to ensure our percentage of both men and women receive their HPV vaccine acknowledging that about 80% of Frederick County children and 80% of Maryland children have not yet received the HPV vaccine.



Source: BRFSS, Question: CHILD HUMAN PAPILLOMA VIRUS (HPV): HAS CHILD EVER HAD AN HPV VACCINATION?

When asked if their child ever had a HPV vaccination 20.1% of those in Frederick County indicated yes, but this does not indicate if the child completed the 3-dose series. Of those reporting their child had received at least one does of the HPV vaccine, approximately 67% of those vaccinated were females and 33% were males. It is most recently approved for use in males.

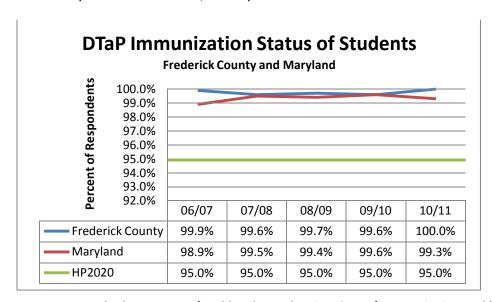
The vaccine is readily available through community health care providers as it is covered by Medicaid and other third party payers.

### **Child DTaP Vaccination**

DTaP is a combination vaccine that protects against three bacteria – diphtheria, tetanus and pertussis (whooping cough). The DTaP vaccine is highly effective for the prevention of diphtheria, tetanus, and pertussis -- all of which are serious diseases. Before the DTaP vaccine, these diseases often led to serious medical problems and even death.

The CDC recommends the DTaP vaccine and it is a required vaccine in Maryland prior to attending school. Parents can opt out of this vaccination if the child has a medical contraindication or if there is a religious objection.

The accepted vaccination schedule is 2 months, 4 months, 6 months, 15 months and a final dose between 4-6 years of age prior to attendance of kindergarten. The DTaP vaccine which protects against diphtheria, tetanus and pertussis is a required vaccination in Maryland to attend school.



Data source: Maryland Department of Health and Mental Hygiene Center for Immunization; Healthy People 2020 IID-10.1.

Data from school year 2006-2007 through school year 2010-2011 averaged between 99.6% and 100% coverage for DTaP in Frederick County. Maryland data for the same timeframe was equal to or slightly below the percents for Frederick County.

Frederick County's most recent year – 2010-2011 exceeded the Healthy People goal of 95% vaccine coverage by achieving a 100% coverage rate.

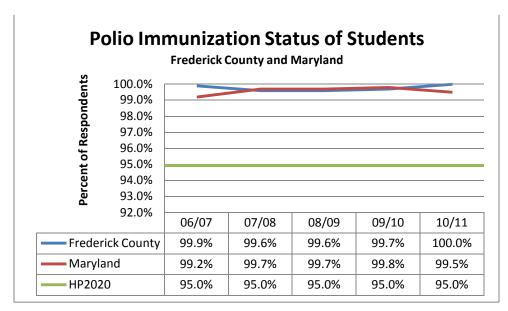
### **Child Polio Vaccination**

Polio is a vaccine preventable disease caused by a virus that is spread from person to person. Generally polio does not cause serious illness but in some instances it can cause paralysis or meningitis. Unfortunately, these effects of polio can result in death as the muscles to breathe become paralyzed.

Polio used to be very common in the United States. It paralyzed and killed thousands of people a year before we had a vaccine. Vaccination against polio in the United States began in 1955. Today polio has been eliminated from the United States.

However polio is still a disease that is present in other countries. As we are a mobile society – people coming to the Unites States from other countries and we traveling to other countries can present a risk for unvaccinated children.

The vaccination series for polio is 2 months, 4 months 6 months and again between 4 to 6 years of age. Polio vaccine is a required vaccination for school attendance.



Data source: Maryland Department of Health and Mental Hygiene Center for Immunization; Healthy People 2020 IID-10.3.

Data from school year 2006-2007 through school year2010-2011 indicate that coverage for polio ranged from 99.6% to 100%. Frederick County data indicates a slight increase in percentage of coverage while Maryland's data indicated a coverage range of 99.2% to 99.8%.

Healthy People 2020 has a goal of 95% coverage by the time a child starts kindergarten. Frederick County has consistently exceeded this goal.

### **Child MMR Vaccination**

Measles, Mumps, and Rubella are caused by viruses and are highly contagious.

Currently, measles is endemic worldwide which puts children not vaccinated at risk as we live in a very global society. Although measles was declared eliminated from the U.S. in 2000, high rates of vaccination and good communication with persons who refuse vaccination is needed to prevent outbreaks and sustain the elimination of measles in the U.S. Rubella, German measles, poses a significant risk to pregnant woman as the baby can contract congenital rubella causing serious congenital defects.

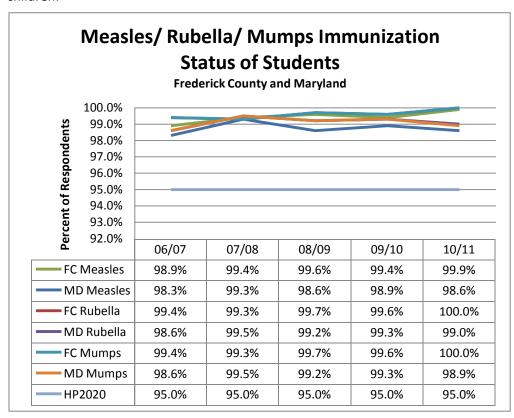
A licensed vaccine to prevent measles was first available in the United States in 1963. Vaccines for the mumps and rubella (German measles) became available in 1967 and 1969, respectively. The three vaccines were combined in 1971 to become the measles-mumps-rubella (MMR) vaccine.

Vaccination against measles, mumps and rubella is currently available in a single vaccine that is administered at age 12 months and again prior to attending kindergarten at age 4 to 6 years. The MMR vaccine which protects against measles, mumps and rubella is a required vaccination in Maryland to attend school.

For the 2013-2014 school year all Maryland students are required to have 2 doses of MMR vaccine.

An outbreak of almost 30,000 cases in 1990 led to a renewed push for vaccination and the addition of a second vaccine to the recommended schedule. Fewer than 200 cases have been reported each year since 1997, and the disease is no longer considered endemic. However because children are not

receiving the MMR vaccine or we believe protection wanes over time we do see outbreaks of mumps predominately on college campuses. At this time there is no recommendation to routinely vaccine older children.



Data source: Maryland Department of Health and Mental Hygiene Center for Immunization; Healthy People 2020 IID-10.2. Note: FC Rubella line is the same as the FC Mumps line.

Data from school year 2006-2007 through school year 2010-2011 averaged between 99.4% and 100% coverage for MMR in Frederick County. Maryland data for the same timeframe was equal to or slightly below the percents for Frederick County.

Frederick County's most recent year – 2010-2011 exceeded the Healthy People goal of 95% vaccine coverage by achieving a 100% coverage rate for rubella and mumps and 99.9% for measles.

## **Child Hepatitis B Vaccination**

Hepatitis B is an infectious inflammatory illness of the liver caused by the hepatitis B virus. Each year about 2,000 to 4,000 people die in the United States from cirrhosis or liver cancer caused by hepatitis B.

Anyone can become infected with hepatitis B. A baby whose mother is infected can be infected at birth.

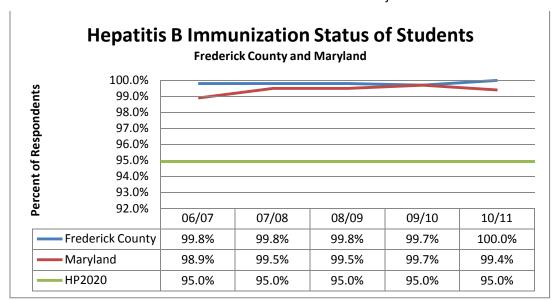
A vaccine to prevent hepatitis B, and the serious consequences of hepatitis B infection is readily available. Routine vaccination was recommended for some adults and children in 1982 and for all children in 1991. Vaccination is now recommended to begin at birth.

A vaccine is available to prevent hepatitis B – it is a series of 3 doses. Dose number 2 is given 1 month after the initial dose and dose number 3 is given 6 months after the initial dose. Currently it is recommended that a baby receive the first dose at birth then 1 to 2 months and 6 to 18 months. At this

time Frederick Memorial Hospital provides the birth dose of hepatitis B vaccine. The Hepatitis B vaccine which protects against Hepatitis B is a required vaccination in Maryland to attend school.

It is essential to ensure children are vaccinated against hepatitis B as it is a vaccine preventable disease. It is important to remember that hepatitis B virus is 50 to 100 times more infectious than HIV – but is preventable.

About a third of the world's population has been infected at one point in their lives, including 350 million who are chronic carriers. Perinatal infection is a major route of infection.



Data source: Maryland Department of Health and Mental Hygiene Center for Immunization; Healthy People 2020 IID-10.4.

Data from school year 2006-2007 through school year 2010-2011 ranged from 99.7% to 100% coverage for hepatitis B. Maryland data for the same timeframe was equal to or slightly below the percents for Frederick County.

Frederick County's most recent year – 2010-2011 exceeded the Healthy People goal of 95% vaccine coverage by achieving a 100% coverage rate.

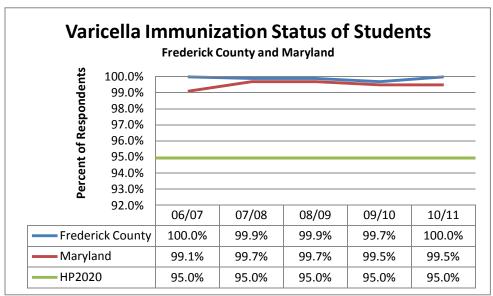
### **Child Varicella Vaccination**

Chickenpox is a very contagious disease caused by the varicella-zoster virus. Chickenpox is a common childhood disease however vaccine can help to decrease the number of cases and the vaccine is very effective at preventing severe cases of chickenpox.

The best way to prevent chickenpox is to get the chickenpox vaccine. Before the vaccine, about 4 million people would get chickenpox each year in the United States. Also, about 10,600 people were hospitalized and 100 to 150 died each year as a result of chickenpox.

A vaccine to prevent chickenpox was introduced in the United States in 1995. Children age 12 and younger are required to have one dose of varicella vaccine to attend a Maryland school and children 13 years of age and older are required to have two doses of the vaccine. The first dose of the vaccine is given between 12 to 15 months of age and the second dose between 4 to 6 years of age – prior to

attending kindergarten. Although this is a required vaccine for attending school parents can opt out due to medical contraindications or religious exemption.



Data source: Maryland Department of Health and Mental Hygiene Center for Immunization; Healthy People 2020 IID-10.5.

Data from school year 2006-2007 through school year 2010-2011 ranged from 99.5% to 100% coverage for Varicella. Maryland data for the same timeframe was equal to or slightly below the percents for Frederick County.

Frederick County's most recent year – 2010-2011 exceeded the Healthy People goal of 95% vaccine coverage by achieving a 100% coverage rate for Varicella during the 2010-2011 school year.

## **Tuberculosis**

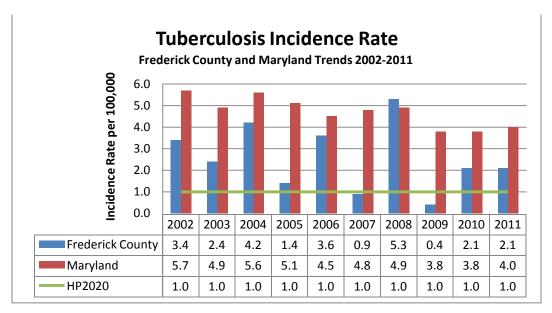
Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs, but TB bacteria can attack any part of the body such as the kidney, spine, and brain. If not treated properly, TB disease can be fatal.

TB is a challenging disease to diagnose, treat, and control. It is critical to target prevention and control efforts to certain populations. TB, if left untreated, has a fatality rate of approximately 50%.

One third of the world's population is thought to have been infected with Mycobacterium tuberculosis, with new infections occurring in about 1% of the population each year. In 2007, there were an estimated 13.7 million chronic active cases globally, while in 2010, there were an estimated 8.8 million new cases and 1.5 million associated deaths, mostly occurring in developing countries.

Although we do not see this amount of TB in the United States it is important to remember that TB is still around and as we are a mobile society – traveling throughout the world – and a welcoming nation for people from other countries where TB is endemic – we must be vigilant in our efforts to identify latent or inactive TB cases, have them treated appropriately with the goal of preventing TB Disease.

Unfortunately, in the US and in Maryland we do see outbreaks of TB Disease in places such as schools and prisons.



Source: Maryland Department of Health and Mental Hygiene; Healthy People 2020 IID-29.

Data for Frederick County indicates that we have a TB incidence rate per 100,000 people of 2.1 for 2011. Data available from 2002 through 2011 demonstrates a rate ranging from 0.4 in 2009 to the highest of 5.3 in 2008 or between 1 person and 12 persons.

Maryland's rate per 100,000 was higher than that for Frederick County during the period of 2002 to 2011 except for 2008.

Healthy People 2020 goal is 1 case per 100,000 of population. Frederick County has an average population 236,745 according to demographic information available at the County's website. With this population in order meet or be under the goal we would expect 2.4 persons or fewer infected. The County's rates were below the Healthy People 2020 goal in 2007 and 2009.

The Frederick County Health Department has a very active and aggressive TB Control Program. When we suspect a client may have TB Disease, control measures are implemented immediately.

The Health Department also has an active Refugee Health Program through which all Refugees relocating to Frederick County receive screening for Tuberculosis – both latent (inactive) infection and disease.

### HIV

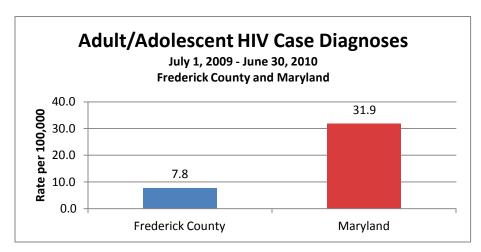
HIV is a preventable disease. Effective HIV prevention interventions have been proven to reduce HIV transmission. People who get tested for HIV and learn that they are infected can make significant behavior changes to improve their health and reduce the risk of transmitting HIV to their sex or drug-using partners. More than 50 percent of new HIV infections occur as a result of the 21 percent of people who have HIV but do not know it.

-Healthy People 2020

The HIV epidemic in the United States continues to be a major public health crisis. An estimated 1.1 million Americans are living with HIV, and 1 out of 5 people with HIV do not know they have it. HIV continues to spread, leading to about 56,000 new HIV infections each year.

In 2010, the White House released a National HIV/AIDS Strategy. The strategy includes 3 primary goals:

- 1. Reducing the number of people who become infected with HIV.
- 2. Increasing access to care and improving health outcomes for people living with HIV.
- 3. Reducing HIV-related health disparities.

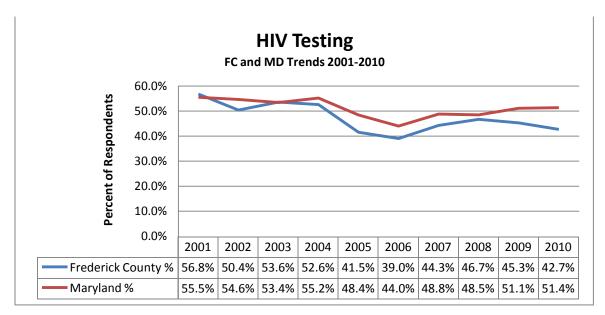


Source: Maryland Department of Health and Mental Hygiene, Accessed 8/13/13

In Frederick County for the period from July 2009 to June 2010, the rate of adult and adolescent HIV diagnoses (per 100,000 population) was 7.8 compared to 31.9 in Maryland.

## **HIV Testing**

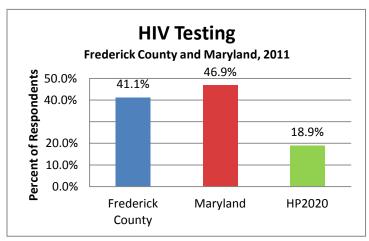
HIV is a preventable disease. Effective HIV prevention interventions have been proven to reduce HIV transmission. People who get tested for HIV and learn that they are infected can make significant behavior changes to improve their health and reduce the risk of transmitting HIV to their sex or drugusing partners. More than 50 percent of new HIV infections occur as a result of exposure to the 21 percent of people who have HIV but do not know it.



Source: BRFSS Data, Question: HIV/AIDS: HAVE YOU EVER BEEN TESTED FOR HIV? DO NOT COUNT TESTS FOR BLOOD DONATIONS

In Frederick County, the percentage of adults who reported they have ever been tested for HIV, not counting tests for blood donations, was highest in 2001at 56.8% and lowest in 2006 at 39%, which is a difference of 37%. The number of adults who reported being tested increased to 46.7% in 2008 and then declined in 2009 and 2010 mirroring the trend in Maryland.

From 2001-2010, the percentage of adults who reported they had ever been tested for HIV, was higher in Maryland than in Frederick County with the exception of 2001 and 2003.



Source: BRFSS Data, Question: HIV/AIDS: HAVE YOU EVER BEEN TESTED FOR HIV? DO NOT COUNT TESTS FOR BLOOD DONATIONS; Healthy People 2020 HIV-14.1.

In 2011, 41.1% of adults in Frederick County reported that they had ever been tested for HIV, a lower testing rate than in Maryland. Frederick County and Maryland exceed the Healthy People 2020 target for HIV testing of 18.9%.

The Maryland Department of Health and Mental Hygiene indicates that the demographics of those that are HIV positive in the Western Region of MD mirrors the national trend with the following groups

disproportionately affected by HIV: males, non-Hispanic blacks, and individuals 30-50 years old with an increase in the 50-59 year olds.

# Sexually Transmitted Disease

Sexually Transmitted Disease (STD) prevention is an essential primary care strategy for improving reproductive health.

Despite their burdens, costs, and complications, and the fact that they are largely preventable, STDs remain a significant public health problem in the United States. This problem is largely unrecognized by the public, policymakers, and health care professionals. STDs cause many harmful, often irreversible, and costly clinical complications, such as:

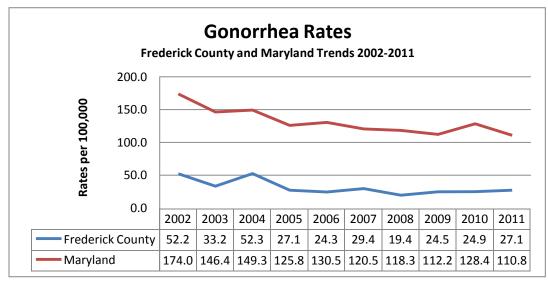
- Reproductive health problems
- · Fetal and perinatal health problems
- Cancer
- Facilitation of the sexual transmission of HIV infection

## Why Is Sexually Transmitted Disease Prevention Important?

The Centers for Disease Control and Prevention (CDC) estimates that there are approximately 19 million new STD infections each year—almost half of them among young people ages 15 to 24. The cost of STDs to the U.S. health care system is estimated to be as much as \$15.9 billion annually. Because many cases of STDs go undiagnosed—and some common viral infections, such as human papillomavirus (HPV) and genital herpes, are not reported to CDC at all—the reported cases of chlamydia, gonorrhea, and syphilis represent only a fraction of the true burden of STDs in the United States.

Untreated STDs can lead to serious long-term health consequences, especially for adolescent girls and young women. The CDC estimates that undiagnosed and untreated STDs cause at least 24,000 women in the United States each year to become infertile.

#### Gonorrhea

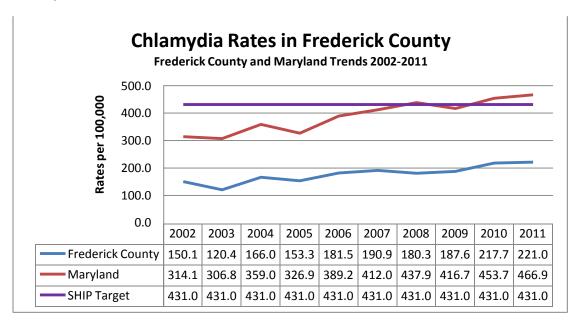


Source: Maryland Department of Health and Mental Hygiene

In Frederick County, the rate (per 100,000 population) of Gonorrhea cases was highest in 2004 at 52.3 and lowest in 2008 at 19.4. Since 2008, the rate has steadily increased to 27.1 in 2011.

From 2002-2011, Frederick County's rate of Gonorrheal infections has been significantly lower than the Maryland rate.

# **Chlamydia**



Source: Maryland Department of Health and Mental Hygiene; Maryland SHIP Obj. 21.

For the period from 2002-2011, the number of Chlamydia cases in Frederick County was lowest in 2003 at 254 and highest in 2011 at 522 cases. From 2006-2011, Frederick County showed a relative steady increase in the number of cases reported, ranging from 404 cases in 2006 to 522 cases in 2011. The Chlamydia disease rate for Frederick County in 2011 was 221.0 (per 100,000 population).

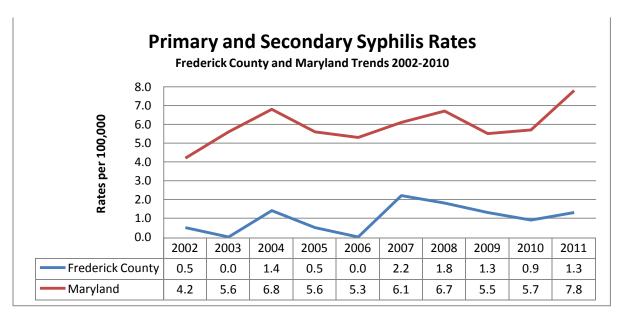
For the period from 2002-2006, the yearly Chlamydia disease rate in Maryland has been above 300.0 (per 100,000 population), and from 2007-2011, the Chlamydia disease rate has been above 400.0. Frederick County's Chlamydia disease rate has been well below Maryland's, but from 2002-2011 both have seen increases. In 2011, Frederick County's rate of Chlamydia infection was 221.0, and Maryland's rate was 466.9.

Frederick County's Chlamydia infection rate of 221.0 in 2011 is well below the MD SHIP 2014 target of 431.0 cases (per 100,000 population).

Frederick County reflects the national trend of Chlamydia being the most commonly reported sexually transmitted infection in the United States.

# **Syphilis**

Per the CDC, congenital syphilis causes fetal or perinatal death in 40% of the infants affected, therefore, it is very important to provide screening to women of childbearing age.



Source: Maryland Department of Health and Mental Hygiene

From 2002-2011, the number of primary and secondary (P&S) Syphilis cases has ranged from 0-5 per year. The largest number of P&S Syphilis cases in Frederick County was reported in 2007 at 5, and the lowest was 0 in 2003 and 2006. Frederick County had 3 cases of P&S Syphilis in 2011, which translates to a rate of 1.3 per 100,000 population.

For 2011, Frederick County's rate of primary and secondary Syphilis cases at 1.3 is well below the state rate of 7.8 per 100,000 population.

## BEHAVIORAL HEALTH

# Mental Health

Mental disorders are among the most common causes of disability. The resulting disease burden of mental illness is among the highest of all diseases. According to the National Institute of Mental Health (NIMH), in any given year, an estimated 13 million American adults (approximately 1 in 17) have a seriously debilitating mental illness. Mental health disorders are the leading cause of disability in the United States and Canada, accounting for 25 percent of all years of life lost to disability and premature mortality. Moreover, suicide is the 11th leading cause of death in the United States, accounting for the deaths of approximately 30,000 Americans each year.

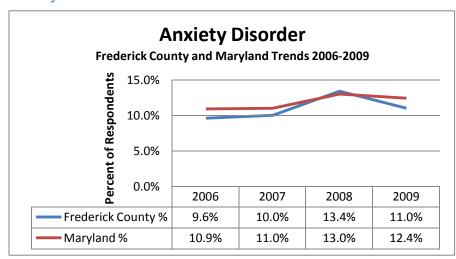
Mental health and physical health are closely connected. Mental health plays a major role in people's ability to maintain good physical health. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

-Healthy People 2020

Mental disorders and/or substance abuse have been found in the great majority of people who have died by suicide. Suicide is a serious public health problem that can have lasting effects on individuals, families, and communities. In Maryland, approximately 500 lives are lost each year to this preventable cause of death.

—Maryland SHIP Objective 8

### **Anxiety**

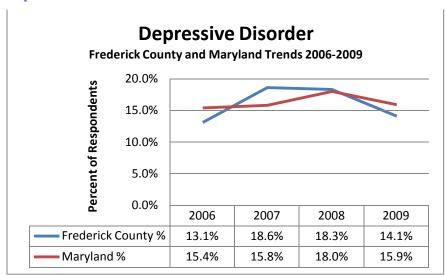


Source: BRFSS Data, Question: ANXIETY DEPRESSION: HAS A DOCTOR EVER TOLD YOU THAT YOU HAD AN ANXIETY DISORDER (INCLUDING ACUTE STRESS, ANXIETY, OBSESSIVE-COMPULSIVE, PANIC, PHOBIA, PTSD, OR SOCIAL ANXIETY)?

The percent of Frederick County residents who reported that a doctor ever told them that they have an anxiety disorder (including acute stress, anxiety, obsessive compulsive disorder, panic disorder, phobia, PTSD or social anxiety)ranged from a low of 9.6% in 2006 to a high of 13.4% in 2008.

The percentage of respondents who indicated they had been diagnosed with an anxiety disorder was lower in Frederick County than in Maryland during three out of the four years for which data is available.

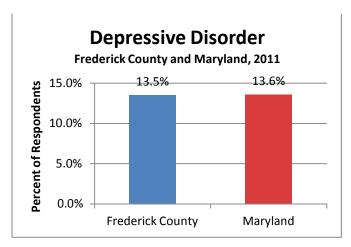
# **Depression**



Source: BRFSS Data, Question: ANXIETY DEPRESSION: HAS A DOCTOR EVER TOLD YOU THAT YOU HAVE A DEPRESSIVE DISORDER (INCLUDING DEPRESSION, MAJOR DEPRESSION, DYSTHYMIA, OR MINOR DEPRESSION)?

The percent of Frederick County residents reporting that a doctor ever told them that they have a depressive disorder (including depression, major depression, dysthymia or minor depression was lowest in 2006, rising 5.5% to the highest point, 18.6%, the following year. The percentage held steady at 18.3% in 2008 before falling to 14.1% in 2009.

The percentage of respondents who indicated they had been diagnosed with a depressive disorder was lower in Frederick County than for Maryland in 2006 and 2009. In 2007, the percentage rose to 18.6% in Frederick County, 2.8% higher than Maryland. In 2008, the percentage for Maryland rose to 18.0%, closely mirroring Frederick County data, 18.3%. In 2009, the percentage decreased for both Frederick County and Maryland, to 14.1% and 15.9% respectively.

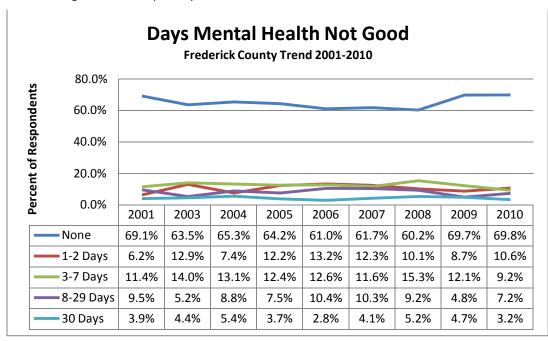


Source: BRFSS Data, Question: ANXIETY DEPRESSION: HAS A DOCTOR EVER TOLD YOU THAT YOU HAVE A DEPRESSIVE DISORDER (INCLUDING DEPRESSION, MAJOR DEPRESSION, DYSTHYMIA, OR MINOR DEPRESSION)?

The percent of residents reporting ever being told that they had a depressive disorder was about the same in Frederick County and Maryland in 2011.

# **Days Mental Health Status Not Good**

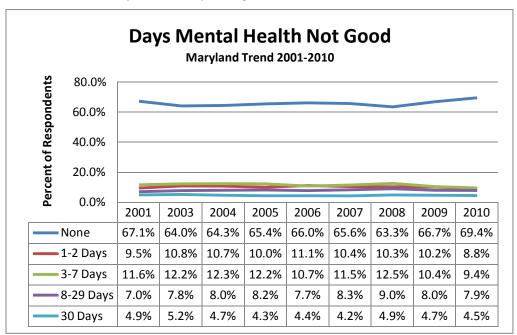
Data was collected utilizing the Centers for Disease Control and Prevention (CDC) state-based Behavioral Risk Factor Surveillance System (BRFSS). BRFSS surveyed the number of days individuals reported their mental health to be "not so good" within the last 30 days. Frederick County data is available for years 2001 through 2011, except for year 2002.



Source: BRFSS, Question: HEALTH STATUS: NUMBER OF DAYS MENTAL HEALTH NOT GOOD

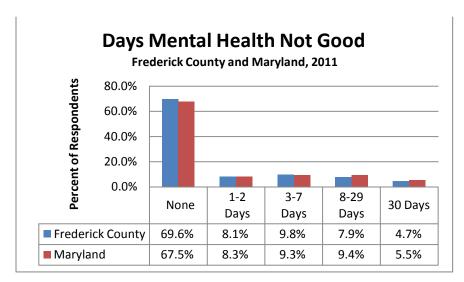
Data is grouped into five categories: None, 1-2 days, 3-7 days, 8-29 days and 30 days. The percent of Frederick County residents reporting "none" fluctuates between 60.2% in 2008 to 69.8% in 2010. The

largest change occurred within a 12 month period between 2008 (60.2%) and 2009 (69.8%) - a 9.5% increase. Since 2009, the overall number of poor mental health days reported by Frederick County residents has decreased. This indicator remained fairly static from 2009 to 2010, with small increases in 2011 for the 8-29 days and 30 days categories.



Source: BRFSS, Question: HEALTH STATUS: NUMBER OF DAYS MENTAL HEALTH NOT GOOD

The percent of Frederick County residents responding "none" to the survey question regarding number of poor mental health days within the last 30 days was higher than Maryland residents in five of the 10 years for which data is available. The largest increase in the number of residents responding they had no poor mental health days within the last 30 days, occurred between 2008 and 2009 for both Frederick County and Maryland. However, the increase was much larger for Frederick County, than Maryland. Frederick County data has remained fairly constant for the last three reporting periods, years 2009-2011, for the "none" category. The 2011 data for both Frederick County and Maryland shows increases in the percentage of individuals reporting poor mental health days in the 8-29 days and 30 days categories.



Source: BRFSS, Question: HEALTH STATUS: NUMBER OF DAYS MENTAL HEALTH NOT GOOD

The FMH 2013 Community Health Needs Assessment reported on pages 15 and 48 the rate of emergency department visits related to behavioral health. Frederick County's rate was lower than the maximum goal set by SHIP.

The FMH 2013 Community Health Assessment reported on page 34 the number of admissions to FMH's med/surg floors in which a primary or secondary admitting cause was a psychiatric diagnosis in FY12. Gender and race and ethnicity numbers were also reported. On page 35 the treatment type and number of visits for mental health therapy and education in FY12 was reported.

### **Substance Abuse**

Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems. These problems include teenage pregnancy, Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), other sexually transmitted diseases (STDs), domestic violence, child abuse, motor vehicle crashes, physical fights, crime, homicide, and suicide.

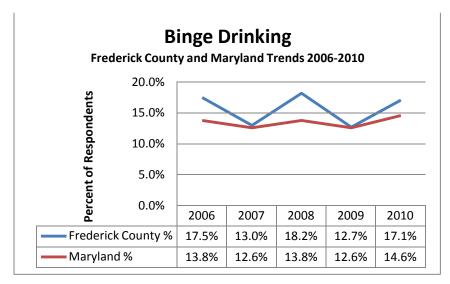
-Healthy People 2020

Excessive alcohol consumption, which includes binge and heavy drinking, has been linked to injuries and deaths from fires, falls, motor vehicle crashes, domestic violence, rape, child abuse and drowning. Continued excessive drinking can result in chronic diseases such as high blood pressure, heart arrhythmias, stroke, liver cirrhosis, pancreatitis and cancer.

-MMWR December 10, 2010 / 59(SS10);1-221

## **Binge Drinking**

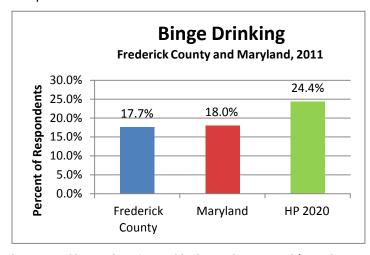
BRFSS data measuring binge drinking, defined as males having five or more drinks and females having four or more drinks on one occasion, is available for years 2006 to 2011.



Source: BRFSS Data, Question: ALCOHOL: BINGE DRINKERS (MALES HAVING FIVE OR MORE AND FEMALES HAVING FOUR OR MORE DRINKS ON ONE OCCASION IN THE PAST MONTH

Data for the first year available, 2006, shows the percentage of persons age 18 years or older in Frederick County engaging in binge drinking during the last 30 days to be 17.5%. This figure fell to 13.0% in 2007 before rising to 18.2% in 2008. The percentage fell to 12.7%, its lowest point, in 2009 before reaching 17.7% in 2011.

A greater percent of Frederick County residents reported binge drinking in every year between 2006 and 2010 than Maryland residents. Frederick County data appears to mirror the increase and decrease pattern of the State, although the percentage of increase and decrease is a bit larger for Frederick County. Between 2009 and 2010, there was a 4.4% increase in binge drinking in Frederick County compared to a 2.0% increase in the State.



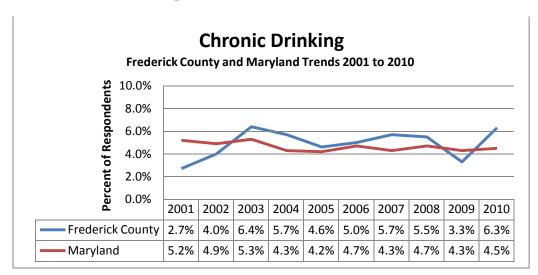
Source: BRFSS Data, Question: ALCOHOL: BINGE DRINKERS (MALES HAVING FIVE OR MORE AND FEMALES HAVING FOUR OR MORE DRINKS ON ONE OCCASION IN THE PAST MONTH; Healthy People 2020 SA-14.3.

The Healthy People 2020 goal (SA 14.3) is to reduce the proportion of persons engaging in binge drinking during the past 30 days- adults 18 years and older to 24.4%. Healthy People 2020 baseline data from 2008 shows 27.1 percent of U.S. adults aged 18 years and older reported that they engaged in binge drinking during the past 30 days. Frederick County's data for the same year, 2008, is 18.2%. That figure

fell to 12.7% in 2009 and rose to 17.1% in 2010. The Healthy People 2020 goal is 24.4%, a ten percent improvement over the 2008 figure.

The 2010 and 2011 Frederick County data exceeds the Healthy People 2020 target goal.

# **Alcohol Chronic Drinking**

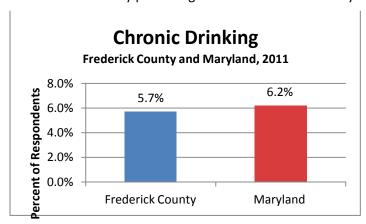


Source: BRFSS Data, Question: ALCOHOL: CHRONIC DRINKING-MEN HAVING MORE THAN 2 DRINKS AND FEMALES 1 DRINK PER DAY

Data for Frederick County is available for years 2001 to 2010. The percent of adults reporting they were chronic drinkers, defined by BRFSS as more than 2 drinks per day (males), and more than one drink per day (females), in 2001 was 2.7%.

The percentage rose to its highest point, 6.4%, in 2003 before falling to 3.3% in 2009. In 2010, the percentage increased by 3.0%, to 6.3%, representing the largest increase in a 12 month period for which survey results are available.

The percentage of Frederick County residents reporting to be chronic drinkers has exceeded the number of Marylanders reporting the same for seven out of the ten years for which data is available. In 2010, the Frederick County percentage was 6.3% while the Maryland percentage was 4.5%.



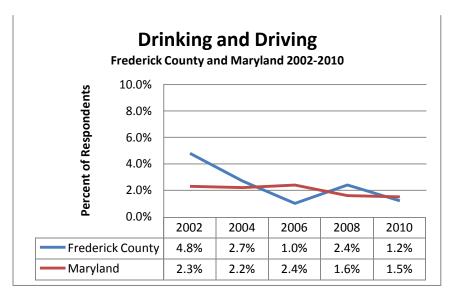
Source: BRFSS Data, Question: ALCOHOL: CHRONIC DRINKING-MEN HAVING MORE THAN 2 DRINKS AND FEMALES 1 DRINK PER DAY

In 2011 the percent of Frederick residents reporting chronic drinking behavior was lower than the percent of Maryland residents.

# **Drinking and Driving**

Every day, almost 30 people in the United States die in motor vehicle crashes that involve an alcohol-impaired driver. This amounts to one death every 48 minutes. The annual cost of alcohol-related crashes totals more than \$51 billion.

Though episodes of drinking and driving have gone down nationally by 30% during the past 5 years, it remains a serious problem. Alcohol-impaired drivers are involved in about 1 in 3 crash deaths, resulting in nearly 11,000 deaths in 2009.



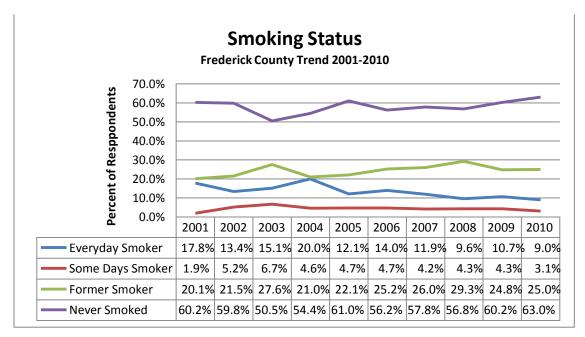
Source: BRFSS Data, Question: ALCOHOL: DRINKING AND DRIVING-DROVE ONE OR MORE TIMES IN PAST MONTH AFTER HAVING TOO MUCH TO DRINK

The percentage of Frederick County residents who reported "Drove One or More Times in Past Month After Having Too Much to Drink (Alcohol)" decreased significantly from 4.8% in 2002 to 1.2% in 2010; a low of 1.0% was reported in 2006.

Comparing Frederick County to Maryland, both data sets indicate decreases in drinking and driving behaviors between 2002 and 2010 with a lower percent of Frederick County residents reporting driving in the past month after having too much to drink (alcohol) in 2 of the years surveyed, 2006 and 2010.

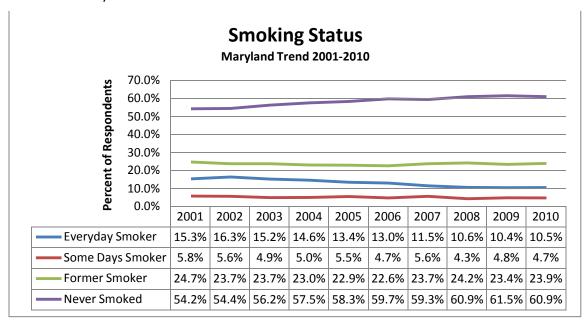
#### **Tobacco Use**

Tobacco use is the single most preventable cause of death and disease in the United States. Each year, approximately 443,000 Americans die from tobacco-related illnesses. For every person who dies from tobacco use, 20 more people suffer with at least 1 serious tobacco-related illness. In addition, tobacco use costs the U.S. \$193 billion annually in direct medical expenses and lost productivity.



Source: BRFSS Data, Question: TOBACCO: SMOKING STATUS

The percent of Frederick County residents identified as "Everyday Smokers" declined from 17.8% in 2001 to its lowest point of 9% in 2010. "Some Days Smokers" increased from 1.9% in 2001 to 3.1% in 2010. "Former Smokers" trended up from 20.1% in 2001 to 25% in 2010. Finally, individuals reporting "Never Smoked" increased from 60.2% in 2001 to 63% in 2010. Except for the "Some Days Smoked" category, the other categories have shown a positive trend toward a tobacco-free smoking status in Frederick County.



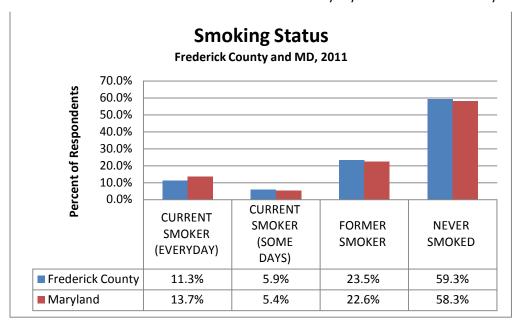
Source: BRFSS Data, Question: TOBACCO: SMOKING STATUS

Generally, the trend data for Frederick County and Maryland appear very similar and appear to be "trending" in the same directions. Between 2001 and 2010, the trend for "Everyday Smoker" in

Frederick County fluctuated more so than the trend for Maryland. During this time frame, Frederick County data fluctuated between 17.8% in 2001 to 9% in 2010 with a high of 20% in 2004 and a low of 9% in 2010. Percentages for Maryland ranged between 15.3% in 2001 and 10.5% in 2010 with a high of 16.3% in 2002 and a low of 10.4% in 2009.

"Former Smokers" from Frederick County in 2001 was 20.1% and 25% in 2010 while the Maryland percentages were 24.7% and 23.9% respectively. Individuals indicating "Never Smoked" in Frederick County in 2001 was 60.2% and 63% in 2010; Maryland percentages indicated 54.2% in 2001 and 60.9% in 2010. The percent of "Former Smokers" has been greater than the percent of current smokers in Frederick County since at least 2001.

Despite these fluctuations, both trend lines for Frederick County and the State of Maryland mirror the other and reflect an overall decrease number of "Everyday Smokers" over the 10 year time frame.



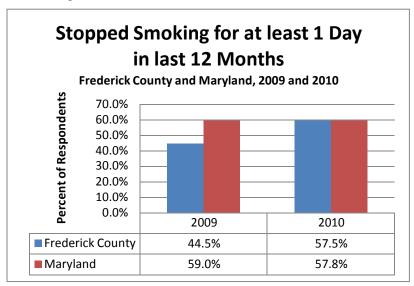
Source: BRFSS Data, Question: TOBACCO: SMOKING STATUS

The Maryland SHIP Objective #32, "Reduce cigarette smoking among adults", combined every day smokers and some day smokers into the category of current smokers, and set the 2014 target at 14.4%. According to the BRFSS, the percentage of current smokers (every day + some days) in Frederick County in 2011 was 17.2%. Frederick County has not achieved the Maryland SHIP target.

Healthy People 2020 similarly set a goal for current smokers of reducing the percentage to 12%. Given the same combination of every day + some day smokers, Frederick County has not yet reached the Healthy People 2020 goal for reducing cigarette smoking in adults.

Since 2000, Frederick County and the State of Maryland have been the recipients of substantial funding from the 1998 "Master Settlement Agreement" with the tobacco companies. This increased funding, targeted tobacco prevention and cessation efforts and other initiatives, including tax increases on cigarettes and the passage of the Maryland "Clean Indoor Air Act" have had a positive impact on reducing the percentage of current smokers in Frederick County.

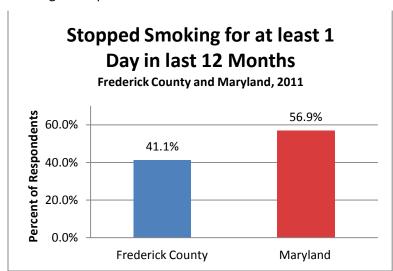
**Tried to Quit Tobacco Use** 



Source: BRFSS, Question: TOBACCO: DURING THE LAST 12 MONTHS, HAVE YOU STOPPED SMOKING FOR 1 DAY OR LONGER BECAUSE TRYING TO QUIT SMOKING?

While 41.1% percentage of Frederick County residents reported having "stopped smoking for at least 1 day in the last 12 months" according to the 2011 BRFSS, 56.9% of Maryland residents reported quitting smoking for at least 1 day.

As reported in the Healthy People 2020, the baseline of 48.3% of adult smokers aged 18 years and older attempted to stop smoking in the past 12 months in 2008 according to the National Health Interview Survey (NHIS). The target goal is 80% of adult smokers aged 18 years and older attempted to stop smoking in the past 12 months.



Source: BRFSS, Question: TOBACCO: DURING THE LAST 12 MONTHS, HAVE YOU STOPPED SMOKING FOR 1 DAY OR LONGER BECAUSE TRYING TO QUIT SMOKING?

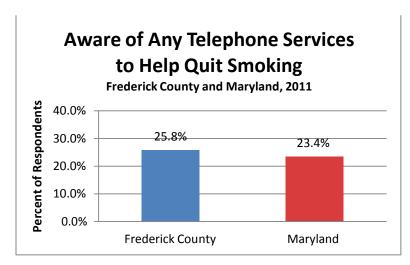
Fewer Frederick County residents (41.1%) reported having quit smoking for 1 day or longer compared to Maryland residents (56.9%) in 2011.

# **Aware of Telephone Services to Help Quit Smoking**

Preventing tobacco use and helping tobacco users quit can improve the health and quality of life for Americans of all ages. People who stop smoking greatly reduce their risk of disease and premature death. Benefits are greater for people who stop at earlier ages, but quitting tobacco use is beneficial at any age.

Healthy People 2020

Awareness of resources to assist with smoking cessation is a necessary first step to people taking advantage of those resources. Quitline interventions, particularly proactive quitlines (i.e. those which offer follow-up counseling calls), are recommended based on strong evidence of effectiveness in increasing tobacco cessation among clients interested in quitting. Quitlines use the telephone to provide evidence-based behavioral counseling and support to help tobacco users who want to quit. The Maryland Tobacco Quitline - 1-800-QUIT- NOW (1-800-784-8669) - is a **FREE** service that is available to all Maryland residents age 18 or older.



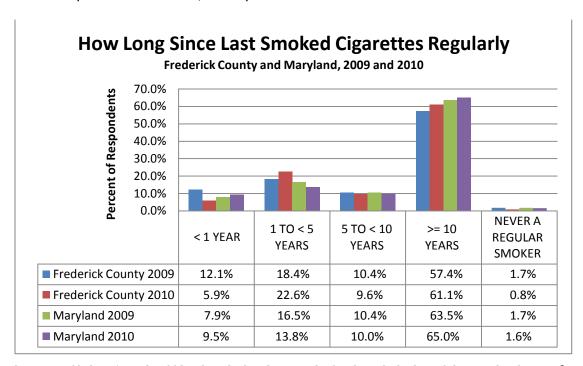
Source: BRFSS, Question: SMOKING CESSATION: ARE YOU AWARE OF ANY TELEPHONE QUITLINE SERVICES THAT ARE AVAILABLE TO HELP YOU QUIT SMOKING?

In 2011, the percent of Frederick County residents who smoked tobacco in the past year who reported that they were aware of the telephone Quitlines to help people stop smoking was just over 25%.

Awareness of the telephone Quitline services was slightly higher among Frederick County smokers than smokers Maryland-wide.

# **How Long since Last Smoked Cigarettes Regularly**

This measure indicates both short term and long term success in smoking cessation and allows for an improved assessment of the impact of recent interventions when persons indicate that they no longer smoke.

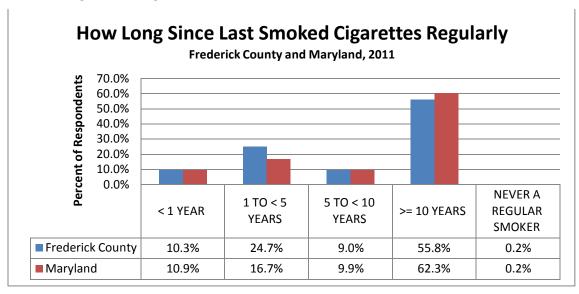


Source: BRFSS, Question: TOBACCO: HOW LONG HAS IT BEEN SINCE YOU LAST SMOKED CIGARETTES REGULARLY?

The percent of Frederick County residents who reported quitting smoking in the last year decreased from 2009 to 2010, but the percent who reported quitting 1-5 years ago and more than 10 years ago increased from 2009 to 2010. The percent of people who reported having quit smoking 5-10 years ago remained consistently around 10% in both Frederick County and Maryland from 2009 to 2010.

In comparison with Maryland, Frederick County had higher percentages of people reporting having quit smoking within the last five years in 2009. In 2010, a greater percent of Maryland residents reported quitting within the last year, but more Frederick County residents reporting quitting within the last 1-5 years.

State funding for smoking cessation activities at the local level decreased in 2010 and in 2011.

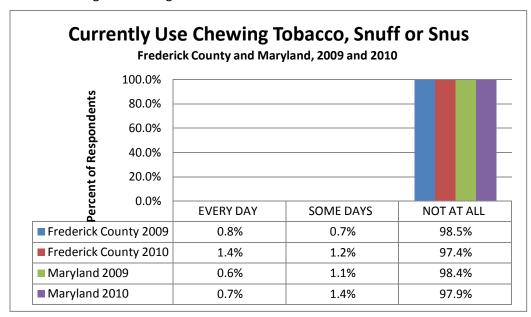


Source: BRFSS, Question: TOBACCO: HOW LONG HAS IT BEEN SINCE YOU LAST SMOKED CIGARETTES REGULARLY?

In 2011, roughly the same percent of Maryland residents and Frederick County residents reported having quit smoking in the last year, but more Frederick County residents reported quitting in the last 1-5 years. The percent of Maryland residents who quit smoking 5-10 and more than 10 years ago was higher than the percent of Frederick County residents reporting the same.

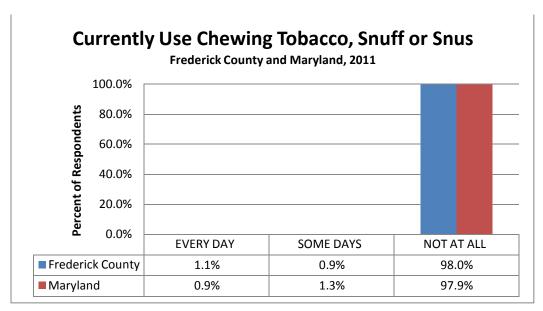
## How Often Use Chewing Tobacco, Snuff or Snus

Smokeless tobacco causes a number of serious oral health problems, including cancer of the mouth and gums, periodontitis, and tooth loss. Tracking this measure allows public health to identify any change in trends that might warrant greater attention.



Source: BRFSS, Question: TOBACCO: DO YOU CURRENTLY USE CHEWING TOBACCO, SNUFF, OR SNUS EVERY DAY, SOME DAYS, OR NOT AT ALL? DEFINITIONS: Chewing tobacco is loose leaves, plugs, or twists of tobacco that are chewed or placed between the cheek and gum or teeth, resulting in excess spit. Snuff is finely ground tobacco, dry or moist, usually placed between the lower lip or cheek and gum. Snus is a spit-free form of moist powder tobacco that is placed between the upper lip and gum.

There was an increase from 2009 to 2010 in the percent of Frederick County residents reporting that they use chewing tobacco, snuff or snus every day or some days. Of those who report using those products, about half of the respondents reported using them every day and the other half reported using them on some days. Less than 3% of the Frederick County residents reported using these products.

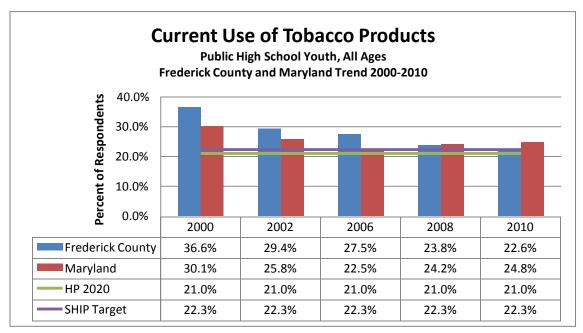


Source: BRFSS, Question: TOBACCO: DO YOU CURRENTLY USE CHEWING TOBACCO, SNUFF, OR SNUS EVERY DAY, SOME DAYS, OR NOT AT ALL? DEFINITIONS: Chewing tobacco is loose leaves, plugs, or twists of tobacco that are chewed or placed between the cheek and gum or teeth, resulting in excess spit. Snuff is finely ground tobacco, dry or moist, usually placed between the lower lip or cheek and gum. Snus is a spit-free form of moist powder tobacco that is placed between the upper lip and gum.

The difference in use of chewing tobacco, snuff, or snus among Frederick County and Maryland residents in 2011 is negligible.

# **Tobacco Use in High School Students**

From 2000-2010, the use of tobacco products by Frederick County high school youth declined by 38%. In Frederick County in the year 2000, tobacco product use by this population was 37% compared to 23% in 2010.



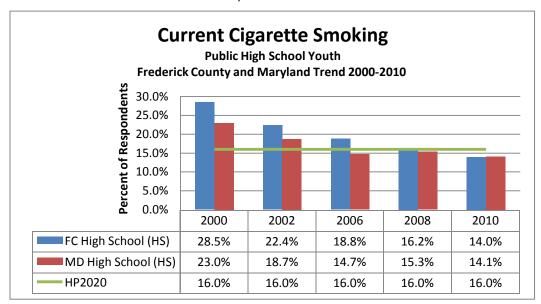
Source: Maryland Youth Tobacco Survey; Healthy People 2020 TU-2.1; Maryland SHIP Obj. 33.

From 2000-2006, the use of tobacco products by high school youth was higher in Frederick County than in Maryland. In 2008, the use of tobacco products by high school youth was the same in Maryland as in Frederick County at 24%. In 2010, tobacco product use by this population was higher in Maryland (25%) than Frederick County (23%).

In 2010, the use of tobacco products by Frederick County high school youth was 22.6%. This does not meet the Maryland SHIP target of 22.3% or the Healthy People 2020 target of 21.0%.

# **Cigarette Smoking in High School Students**

This indicator is a Healthy People 2020 Leading Health Indicator (LHI). According to Healthy People, "The LHIs are a call to action in critical public health areas that demand our immediate attention."



Source: Maryland Youth Tobacco Survey; Healthy People 2020 TU-2.2.

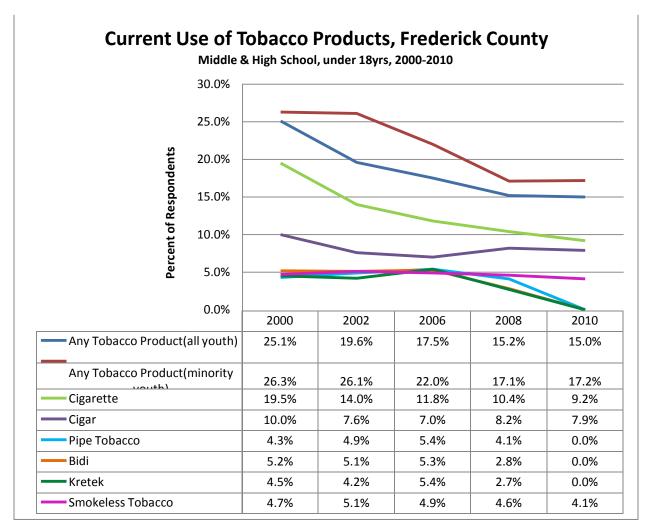
From 2000-2010 current cigarette smoking by Frederick County high school youth declined by 52%. In Frederick County in the year 2000, current cigarette smoking by this population was 29% compared to 14% in 2010.

From 2000-2008, current cigarette smoking by high school youth was higher in Frederick County than in Maryland. In 2010, cigarette smoking by high school youth was the same in Maryland as in Frederick County at 14%.

In 2010, current cigarette smoking by high school youth in Frederick County was 14%. This meets the Healthy People 2020 target of 16% or lower.

## **Tobacco Product Use in Middle and High School Students**

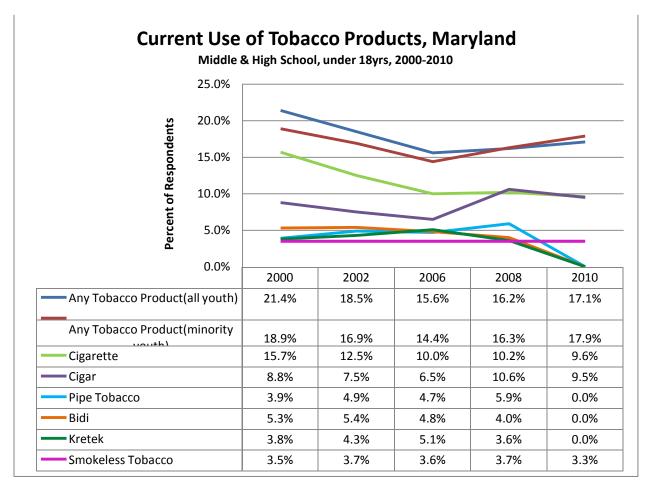
Data was collected utilizing the 2000-2010 Maryland Youth Tobacco Survey. Youth are defined as young people under the age of 18 in public middle and high school. Frederick County data measuring "current use of tobacco products" is available for years 2000, 2002, 2006, 2008 and 2010.



Source: Maryland Youth Tobacco Survey. **Definitions**: Bidi - a thin, Indian cigarette filled with tobacco and wrapped in a leaf tied with a string at one end, traditionally used throughout South Asia and parts of the Middle East. Kretek - cigarettes made with a blend of tobacco, cloves and other flavors widely used in Indonesia.

According to the 2000-2010 Monitoring Changing Tobacco Use Behaviors - Legislative Report,

- 1) Current use of any tobacco products by Frederick County middle and high school youth has declined from 25% in 2000 to 15% in 2010. This measure indicates a 40% reduction in current use of tobacco products by this population.
- 2) Current use of any tobacco products by Frederick County minority youth in middle and high school has declined from 26% in 2000 to 17% in 2010. This measure indicates a 35% reduction in current use of tobacco products by this population.
- 3) Current cigarette use by Frederick County middle and high school youth has declined from 20% in 2000 to 9% in 2010. This measure indicates a 55% reduction in current use of tobacco products by this population.
- 4) Current cigar use by Frederick County middle and high school youth has declined from 10% in 2000 to 8% in 2010. This measure indicates a 20% reduction in current use of tobacco products by this population.



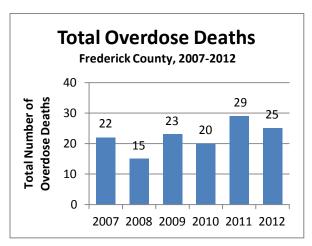
Source: Maryland Youth Tobacco Survey. **Definitions**: Bidi - a thin, Indian cigarette filled with tobacco and wrapped in a leaf tied with a string at one end, traditionally used throughout South Asia and parts of the Middle East. Kretek - cigarettes made with a blend of tobacco, cloves and other flavors widely used in Indonesia.

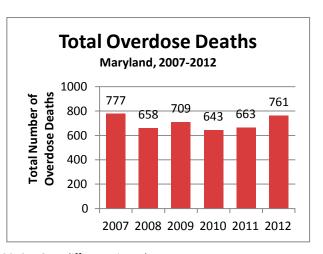
Between 2000 and 2010, both Frederick County and Maryland experienced decreases in middle and high school youth smoking prevalence. According to the 2000-2010 Monitoring Changing Tobacco Use Behaviors – Legislative Report,

- 1) Maryland middle and high school youth reported a 21% any tobacco use prevalence rate in 2000; in 2010 that rate dropped to 17%. This measure indicates a 20% reduction in current use of tobacco products by this population although the percent is trending upward since 2006. Current use of any tobacco products by Frederick County middle and high school youth declined from 25% in 2000 to 15% in 2010. This measure indicates a 40% reduction in current use of tobacco products by this population.
- 2) Current use of any tobacco products by Maryland minority youth in middle and high school has declined from 19% in 2000 to 18% in 2010 although it is trending upward since 2006. Current use of any tobacco products by Frederick County minority youth in middle and high school declined from 26% in 2000 to 17% in 2010 and unlike the Maryland experience, Frederick County has not experienced an increase in recent years.
- 3) Current cigarette use by Maryland middle and high school youth has declined from 16% in 2000 to 10% in 2010. Current cigarette use by Frederick County middle and high school youth has declined from 20% in 2000 to 9% in 2010.

4) Current cigar use by Maryland middle and high school youth has increased from 9% in 2000 to 10% in 2010. Current cigar use by Frederick County middle and high school youth has declined from 10% in 2000 to 8% in 2010. The increase in current use of cigars in Frederick County since the low of 2006 is not as great as the increase reported for Maryland.

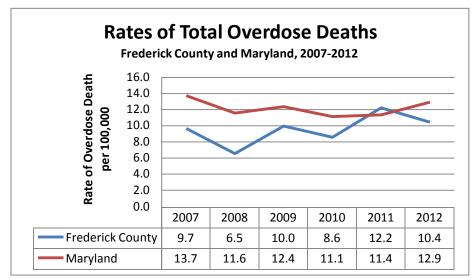
#### **Total Overdose Deaths**





Source: Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012; NOTE: difference in scales.

The trend in the number of overdose deaths in Frederick County residents between 2007 and 2012 is slightly upward with year to year fluctuations. The number of overdose deaths in all Maryland residents also fluctuated each year in the same period, but the total number was the highest in 2007 creating a slight downward trend.

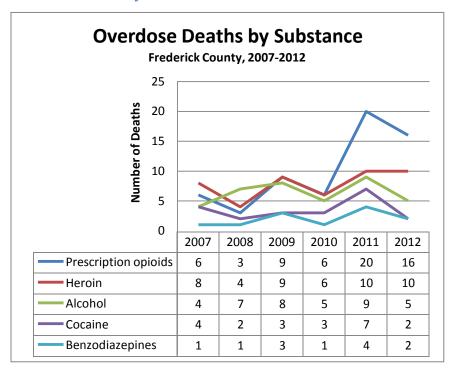


Source: Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012; Decennial Census Totals and Intercensal Estimates of the Resident Population for Jurisdictions in Maryland: April 1, 2000 to April 1, 2010

Converting the number of drug overdose deaths to a rate allows for comparison to other jurisdictions with different total numbers of residents. Even though the rate calculated is not age-adjusted it does

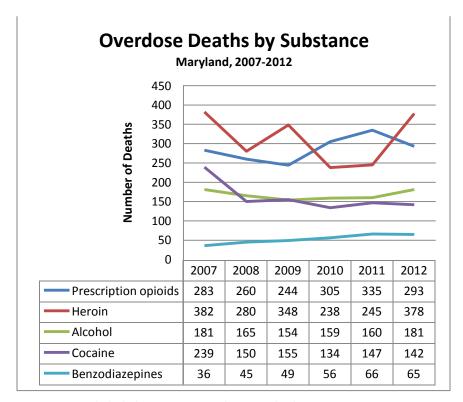
allow for a comparison of rates between Frederick County and Maryland. The rate of drug overdose deaths in Frederick was higher than the rate in Maryland in 2011. In 2012 the Frederick County rate dropped below the Maryland rate, but the overall trend for Frederick County residents from 2007 to 2012 was increasing. The rate of Maryland resident drug overdose deaths in the same period remained relatively steady with a slight decrease trend until 2011 when the rate increased.

## **Overdose Deaths by Substance**



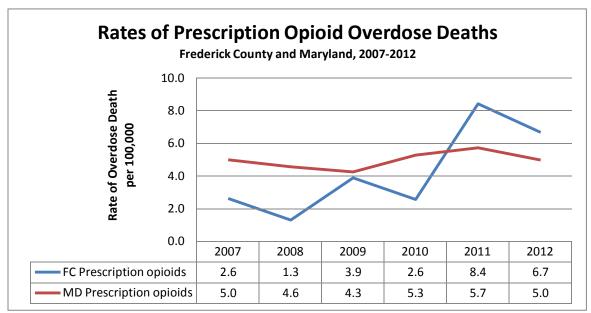
Source: Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012

The substances that contributed to the drug overdose in Frederick County residents between 2007 and 2012 were most often prescription opioids (a class of pain medicine) and heroin. Alcohol, cocaine, and benzodiazepines (most commonly anti-anxiety medicines) were also identified. The greatest change in that time period was the number of deaths related to prescription opioids. The number of heroin deaths also increased during that time while the number of other substances involved remained steady or did not increase as much.



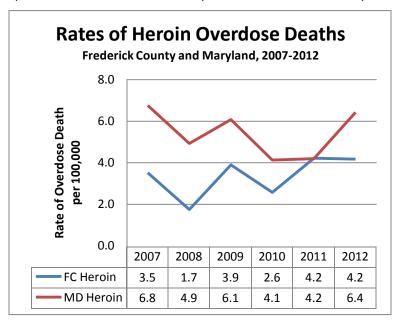
Source: Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012

The trend in type of substance involved in overdose deaths in Maryland between 2007 and 2012 was different from the trend in Frederick County. In Maryland heroin was most often involved in overdose deaths except for 2010 and 2011 when an increase in prescription opioid overdose deaths pushed deaths from prescription opioids above the number of heroin deaths.



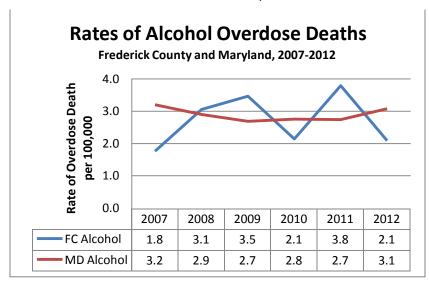
Source: Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012; Decennial Census Totals and Intercensal Estimates of the Resident Population for Jurisdictions in Maryland: April 1, 2000 to April 1, 2010

When the number of deaths in Frederick County and Maryland are converted to rates the difference in the population sizes are equalized. The rates here were calculated using a non-age adjusted methodology. Doing so allows for a better comparison between jurisdictions. The rate of prescription opioid deaths in Frederick County exceeded the rate in Maryland in 2011 and 2012.



Source: Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012; Decennial Census Totals and Intercensal Estimates of the Resident Population for Jurisdictions in Maryland: April 1, 2000 to April 1, 2010

The rate of heroin overdose deaths in Frederick County is showing an increasing trend over the period of 2001 to 2012 and reached the rate of Maryland in 2011.



Source: Drug and Alcohol Intoxication Deaths in Maryland, 2007-2012; Decennial Census Totals and Intercensal Estimates of the Resident Population for Jurisdictions in Maryland: April 1, 2000 to April 1, 2010

The rate of alcohol overdose deaths in Frederick County was up and down during the period of 2007 and 2012 but the average was close to that of Maryland, which experienced less year to year variation.

## PHYSICAL HEALTH STATUS

# Physical Activity

Regular physical activity can improve the health and quality of life of Americans of all ages, regardless of the presence of a chronic disease or disability. Among adults and older adults, physical activity can lower the risk of:

- Early death
- Coronary heart disease
- Stroke
- High blood pressure
- Type 2 diabetes
- Breast and colon cancer
- Falls
- Depression

Among children and adolescents, physical activity can:

- Improve bone health.
- Improve cardiorespiratory and muscular fitness.
- Decrease levels of body fat.
- Reduce symptoms of depression.

For people who are inactive, even small increases in physical activity are associated with health benefits.

According to the 2008 Physical Activity Guidelines for Americans, you need to do two types of physical activity each week to improve your health—aerobic and muscle-strengthening. For important health benefits, adults need:

- 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity (i.e., brisk walking) every week **and**
- muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

#### OR

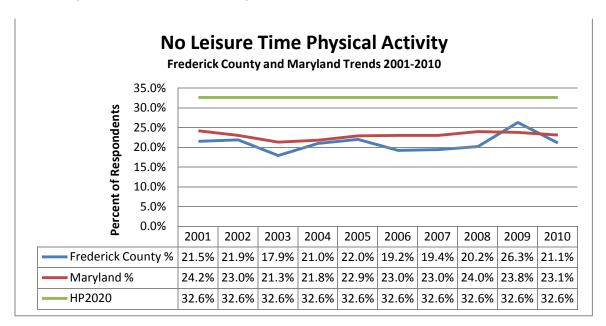
- 1 hour and 15 minutes (75 minutes) of vigorous-intensity aerobic activity (i.e., jogging or running) every week and
- muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

#### OR

- An equivalent mix of moderate- and vigorous-intensity aerobic activity and
- muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms).

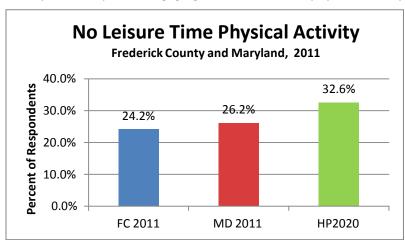
# **Adults with No Leisure Time Physical Activity**

In Frederick County since 2001, the percentage of adults who reported engaging in no leisure-time physical activity was lowest in 2003 (18%) and highest in 2009 (26%).



Source: BRFSS Data, Question: HAD ANY LEISURE TIME PHYSICAL ACTIVITIES SUCH AS RUNNING OR WALKING FOR EXERCISE DURING THE LAST 30 DAYS – Answer NO

From 2001-2010, the percentage of adults who reported engaging in no leisure-time physical activity has been higher in Maryland than Frederick County, with the exception of 2009. In 2010, 21% of Frederick County adults reported engaging in no leisure-time physical activity compared to 23% in Maryland.

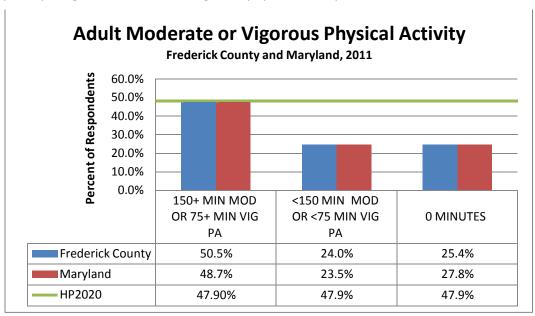


Source: BRFSS Data, Question: HAD ANY LEISURE TIME PHYSICAL ACTIVITIES SUCH AS RUNNING OR WALKING FOR EXERCISE DURING THE LAST 30 DAYS – Answer NO; Healthy People 2020 PA-1.

In 2011, the percentage of adults who reported engaging in no leisure-time physical was lower in Frederick County (24.2%) than in Maryland (26.2%). In Frederick County in 2011, the percentage of adults who reported engaging in no leisure-time physical. This exceeds the Healthy People 2020 goal, which is to reduce no leisure-time physical activity to 32.6%.

# Adults 150 min Moderate or 75 min Vigorous Physical Activity per Week

In Frederick County in 2011, 51% of adults reported participating in 150 minutes or more of moderate physical activity or 75 minutes or more of vigorous physical activity. However, 25% of adults reported participating in no moderate or vigorous physical activity.



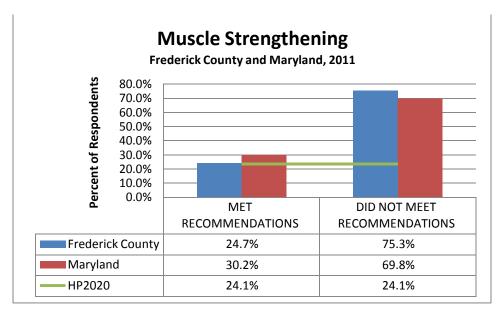
Source: BRFSS Data, Question: ADULTS PARTICIPATED IN 150 MINUTES OR 75 MIN OF VIGOROUS PHYSICAL ACTIVITY PER WEEK; Healthy People 2020 PA-2.1.

In 2011, a greater number of adults reported participating in 150 minutes or more of moderate physical activity or 75 minutes or more of vigorous physical activity in Frederick County (51%) than in Maryland (49%). Fewer adults reported participating in no moderate or vigorous physical activity in Frederick County (25%) than in Maryland (28%).

In Frederick County in 2011, the percent of adults reported participating in 150 minutes or more of moderate physical activity or 75 minutes or more of vigorous physical activity exceeds the Healthy People 2020 goal, which is to increase participation to 47.9%.

# **Adults Doing Muscle Strengthening**

In Frederick County in 2011, 25% of adults reported meeting the recommendations for muscle strengthening activity.



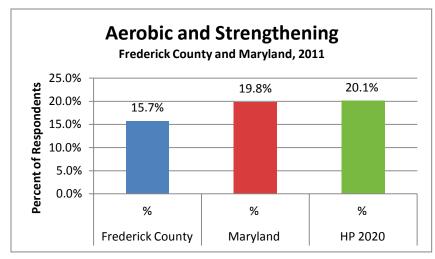
Source: BRFSS Data, Question: MUSCLE STRENGHTENING RECOMMENDATIONS PER WEEK; Healthy People 2020 PA-2.3.

In 2011, a lower percentage of adults reported meeting the recommendations for muscle strengthening activity in Frederick County (25%) than in Maryland (30%).

In Frederick County in 2011, the percent of adults reported meeting the recommendations for muscle strengthening activity exceeds the Healthy People 2020 goal of 24.1%.

# Adults 75/150 min Aerobic and Strengthening

This indicator is a Healthy People 2020 Leading Health Indicator (LHI). According to Healthy People, "The LHIs are a call to action in critical public health areas that demand our immediate attention."



Source: BRFSS Data, Question: MEET 150 MIN OR 75 MIN VIG AEROBICS AND STRENGHTENING GUIDELINES PER WEEK; Healthy People 2020 PA-2.4.

In Frederick County in 2011, 16% of adults reported meeting the Federal physical activity guidelines for aerobic physical activity and muscle-strengthening activity (adult guidelines: 150 minutes or more of

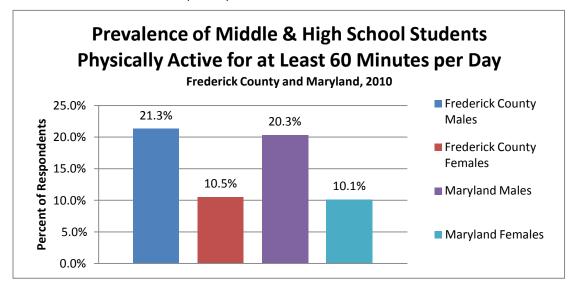
moderate physical activity or 75 minutes or more of vigorous physical activity per week and muscle-strengthening activities on 2 or more days a week).

In 2011, fewer adults in Frederick County (16%) reported meeting the Federal physical activity guidelines for aerobic physical activity and for muscle-strengthening activity compared to Maryland (20%).

Frederick County is not meeting the Healthy People 2020 goal of 20.1% for this indicator.

### Middle/High School Students Physically Active 60 min per day

In Frederick County in 2010, the percentage of middle and high school students who were physically active for at least 60 minutes per day was 21% for males and 11% for females.



Source: Maryland Youth Tobacco Survey

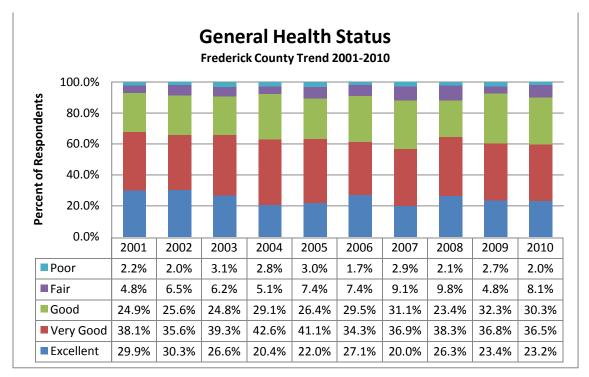
In 2010, the percentage of middle and high school males who were physically active for at least 60 minutes per day was slightly higher in Frederick County (21%) than Maryland (20%). Likewise, the percentage of middle and high school females who were physically active for at least 60 minutes per day was slightly higher in Frederick County (11%) than Maryland (10%).

The Frederick County School Health Council has developed a K-12 Recommendations and Action Plan. This plan includes a recommendation to increase physical activity and health education opportunities for students. Action steps for this recommendation were identified and are currently being implemented, such as sharing best practices, integrating movement into classroom instruction, and supporting and recognizing schools that implement wellness initiatives, among others.

# Self-Reported Health Status

#### **General Health Status**

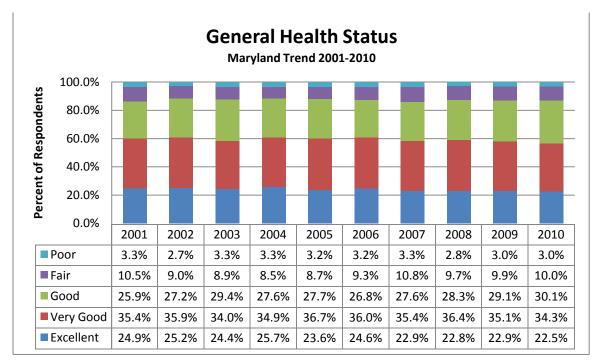
Self-assessed health status has been validated as a useful indicator of health for a variety of populations and allows for broad comparisons across different conditions and populations.



Source: BRFSS, Question: HOW IS YOUR HEALTH IN GENERAL?

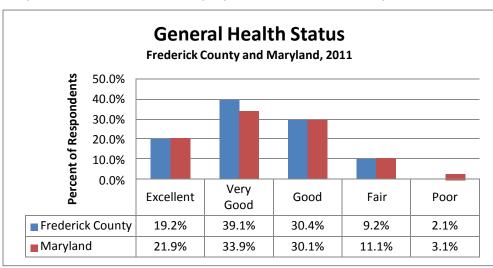
Over the last 10 years, the percent of Frederick County residents reporting their days as excellent or very good has decreased while the percent reporting their health as good or fair increased with no significant change in the percent reporting their health as poor.

In the same time period the only significant change reported by Maryland residents was in the number of good health days which increased.



Source: BRFSS, Question: HOW IS YOUR HEALTH IN GENERAL?

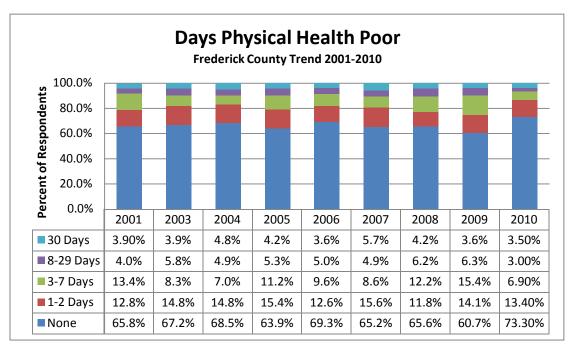
In 2011, the percent of Frederick County residents reporting their days as excellent or very good was slightly higher than Maryland (58.3% compared to 55.8%). Roughly the same percentage reported that their health was good (30.4% in Frederick County and 30.1% in Maryland), while slightly more people in Maryland than in Frederick County reported health to be fair or poor.



Source: BRFSS, Question: HOW IS YOUR HEALTH IN GENERAL?

# **Physical Health Status**

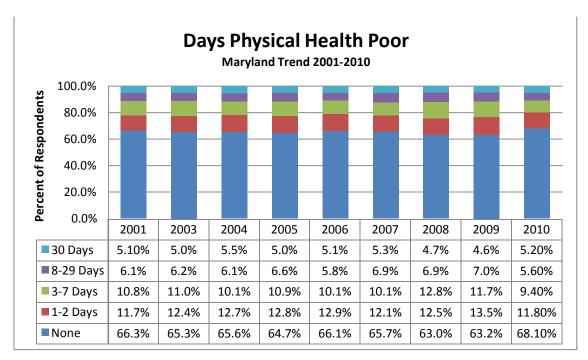
When quality of life is considered in the context of health and disease, it's commonly referred to as health-related quality of life (HRQOL). Researchers today agree that HRQOL is multidimensional and includes domains that are related to physical, mental, emotional, and social functioning and the social context in which people live.



Source: BRFSS, Question: NUMBER OF DAYS PHYSICAL HEALTH NOT GOOD

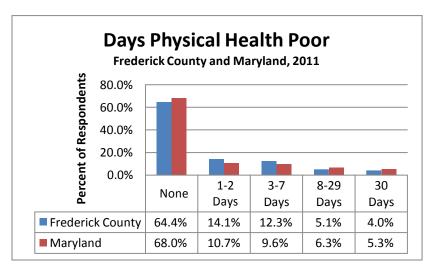
Between 2001 and 2010 there was a slight increase in the percent of people reporting no days when they would describe their physical health as poor, but a decrease in the percent of people reporting their physical health being poor for more than 3 days.

There was not as much improvement in the reported physical health for Marylanders as there was for Frederick County residents. More Frederick County residents report no poor physical health days than Maryland residents between 2001 and 2010



Source: BRFSS, Question: NUMBER OF DAYS PHYSICAL HEALTH NOT GOOD

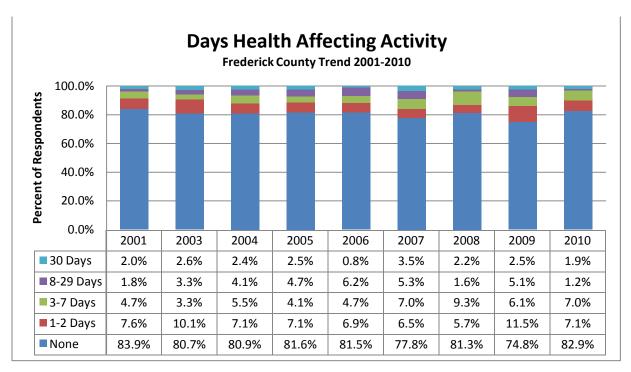
Almost 36% of the Frederick County residents reported at least one day of poor physical health in 2011, which was higher than the Maryland response (32%).



Source: BRFSS, Question: NUMBER OF DAYS PHYSICAL HEALTH NOT GOOD

# **Health Status Affecting Activity Level**

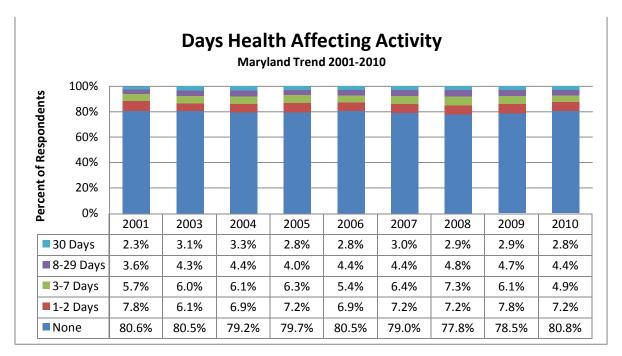
The number of days in which activities is limited is important to track as it has significance for the employment sector, health expenditures, and general well being.



Source: BRFSS, Question: HOW MANY DAYS DID POOR PHYSICAL OR MENTAL HEALTH KEEP YOU FROM YOUR ACTIVITIES?

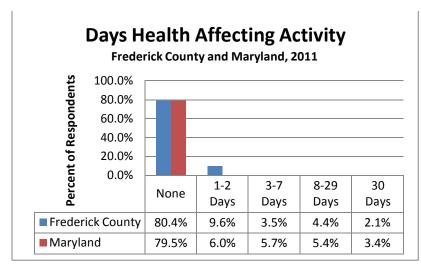
Between 2001 and 2010 there have been small ups and downs in the number of days that poor physical or mental health has kept persons from doing activities in Frederick County ranging from one in four persons to one in six persons

Frederick County and Maryland percents and trends are about the same with slightly fewer Maryland residents reporting 3-7 days, 8-29 days, and over 30 days of activity limitations due to poor physical or mental health.



Source: BRFSS, Question: HOW MANY DAYS DID POOR PHYSICAL OR MENTAL HEALTH KEEP YOU FROM YOUR ACTIVITIES?

Almost 20% or one in five of Frederick County residents reported at least one day of activity limitation due to poor physical or mental health in 2011, about the same as in Maryland.



Source: BRFSS, Question: HOW MANY DAYS DID POOR PHYSICAL OR MENTAL HEALTH KEEP YOU FROM YOUR ACTIVITIES?

# Obesity

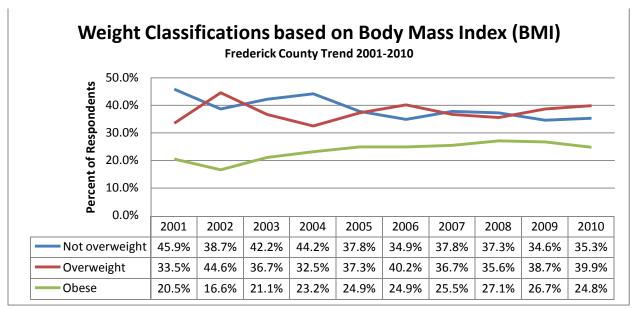
Diet and body weight are related to health status. Individuals who are at a healthy weight are less likely to:

- Develop chronic disease risk factors, such as high blood pressure and dyslipidemia.
- Develop chronic diseases, such as type 2 diabetes, heart disease, osteoarthritis, and some cancers.
- Experience complications during pregnancy.
- Die at an earlier age.

-Healthy People 2020

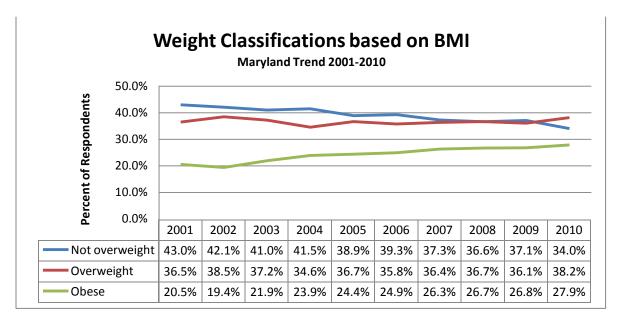
## **Weight Classification**

Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.



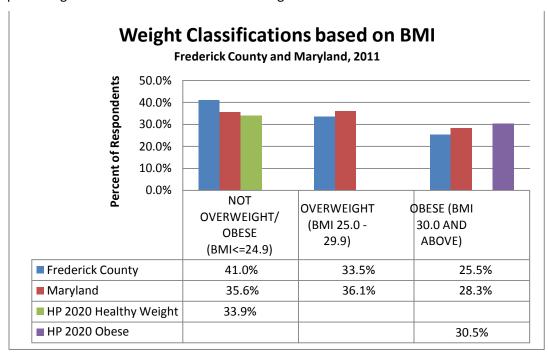
Source: BRFSS, Question: WEIGHT CONTROL: WEIGHT CLASSIFICATIONS BASED ON BODY MASS INDEX (BMI)

Between 2001 and 2010, the percentage of adults classified as overweight in Frederick County has increased from 33.5% to 39.9% while the percentage of adults classified as obese increased from 20.5% to 24.8%. The percentage of Frederick County adults classified as not overweight has decreased from 45.9% to 35.3%.



Source: BRFSS, Question: WEIGHT CONTROL: WEIGHT CLASSIFICATIONS BASED ON BODY MASS INDEX (BMI)

Between 2001 and 2010, both Frederick County and Maryland experienced an increase in the percentage of adults classified as overweight and obese and both experienced a decrease in the percentage of adults classified as not overweight.



Source: BRFSS, Question: WEIGHT CONTROL: WEIGHT CLASSIFICATIONS BASED ON BODY MASS INDEX (BMI); Healthy People NWS-8 and NWS-9.

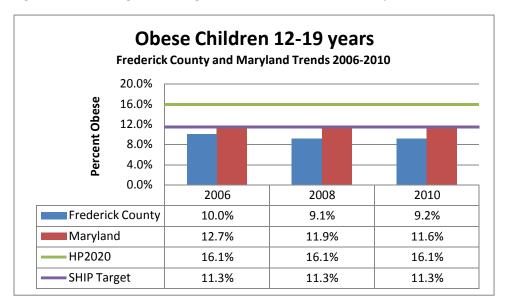
In 2011, Maryland had a higher percentage of adults classified as overweight than Frederick County (36.1% vs. 33.5%) and a higher percentage of adults classified obese than Frederick County (28.3% vs 25.5%).

Frederick County Health Department Community Health Assessment, January 2014

The Healthy People 2020 goal is to increase the percentage of adults who are at a healthy weight to 33.9%, and to decrease the percentage of obese adults to 30.5%. Frederick County has consistently been meeting both of these goals since 2001.

## **Obese Children**

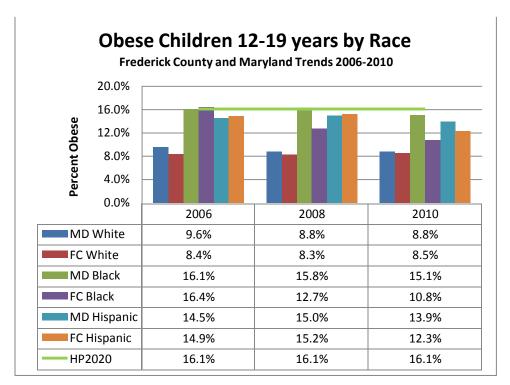
According to the CDC children who are overweight or obese as preschoolers are 5 times as likely as normal-weight children to be overweight or obese as adults. Obese children are more likely to be obese later in childhood and adolescence. In these older children and adolescents, obesity is associated with high cholesterol, high blood sugar, asthma, and mental health problems.



Data Source: MD DHMH, Maryland Youth Tobacco Survey; Healthy People 2020 NWS-10.3; Maryland SHIP Obj. 31.

Between 2006 and 2010, the percentage of Frederick County children aged 12 to 19 years classified as obese decreased from 10.0% to 9.2%.

In 2010, Frederick County had a lower percentage of obese children than Maryland (9.2% vs. 11.6%).



Data Source: MD DHMH, Maryland Youth Tobacco Survey

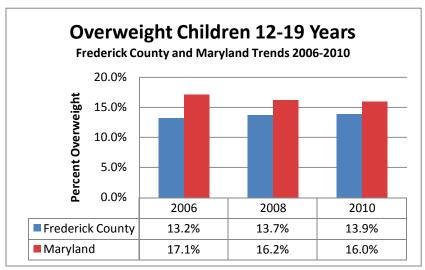
The percentages of children aged 12 to 19 years classified as obese for the racial/ethnic groups of Black and Hispanic decreased, but were still higher than the percent for Whites which remained relatively stable between 2006 and 2010.

Black and Hispanic youth have higher percentages of obesity in Maryland and Frederick County and the decrease observed in Frederick County for those two groups was greater than the decrease observed in Maryland, especially for Frederick County Blacks.

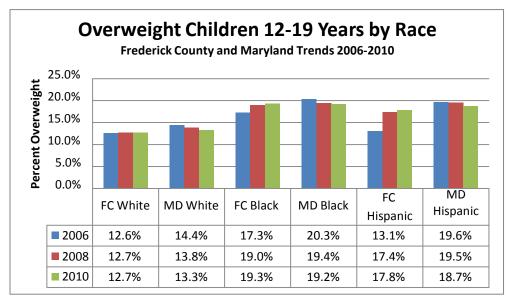
Frederick County meets the Healthy People 2020 of reducing the % of obese children to 16.1% and Maryland SHIP 2014 target of 11.3%.

Local efforts through the Local Health Improvement wellness and prevention subcommittee have helped to decrease the percentage of children that are obese.

## **Overweight Children**



Data Source: MD DHMH, Maryland Youth Tobacco Survey



Data Source: MD DHMH, Maryland Youth Tobacco Survey

Between 2006 and 2010, the percentage of Frederick County children aged 12 to 19 years classified as overweight increased slightly from 13.2% to 13.9%. The percentages across racial/ethnic groups increased for Frederick County White, Black and Hispanic children, with Black children having the highest percentage. That trend for Black and Hispanic children is the opposite of the trend observed for obesity for the same years.

Maryland experienced a decrease in the percentage of children aged 12 to 19 years classified as overweight whereas Frederick County experienced an increase. Maryland also had a decrease in the percentage across racial/ethnic groups.

# MATERNAL, INFANT, CHILD HEALTH

Pregnancy can provide an opportunity to identify existing health risks in women and to prevent future health problems for women and their children. These health risks may include:

- Hypertension and heart disease
- Diabetes
- Depression
- · Genetic conditions
- Sexually transmitted diseases (STDs)
- Tobacco use and alcohol abuse
- Inadequate nutrition
- Unhealthy weight

The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and interconception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential.

Many factors can affect pregnancy and childbirth, including:

- Preconception health status
- Age
- Access to appropriate preconception and interconception health care
- Poverty

Infant and child health are similarly influenced by sociodemographic factors, such as family income, but are also linked to the physical and mental health of parents and caregivers.

There are racial and ethnic disparities in mortality and morbidity for mothers and children, particularly for African Americans. These differences are likely the result of many factors.

#### **Social Determinants of Maternal Health**

These include pre-pregnancy health behaviors and health status, which are influenced by a variety of environmental and social factors such as access to health care and chronic stress.

#### **Physical Determinants of Maternal Health**

Common barriers to a healthy pregnancy and birth include lack of access to appropriate health care before and during pregnancy. In addition, environmental factors can shape a woman's overall health status before, during, and after pregnancy by:

- Affecting her health directly.
- Affecting her ability to engage in healthy behaviors.

#### Social Determinants of Infant and Child Health

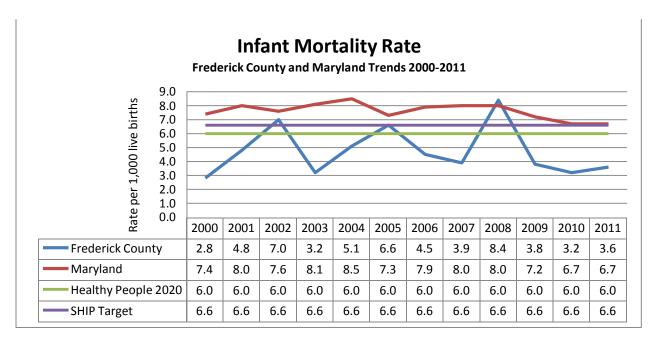
The social determinants that influence maternal health also affect pregnancy outcomes and infant health. Racial and ethnic disparities in infant mortality exist, particularly for African American infants. Child health status varies by both race and ethnicity, as well as by family income and related factors, including educational attainment among household members and health insurance coverage.

## **Physical Determinants of Infant and Child Health**

The cognitive and physical development of infants and children is influenced by the health, nutrition, and behaviors of their mothers during pregnancy and early childhood. Breast milk is widely acknowledged to be the most complete form of nutrition for most infants, with a range of benefits for their health, growth, immunity, and development. Furthermore, children reared in safe and nurturing families and neighborhoods, free from maltreatment and other social adversities, are more likely to have better outcomes as adults.

#### **Infant Mortality**

Infant mortality measures deaths during the first year of life. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and interconception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential.

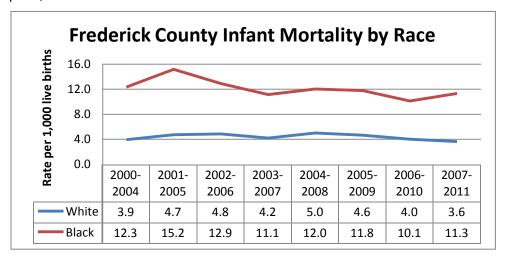


Data Source: Maryland Vital Statistics Reports, Division of Health Statistics, Maryland DHMH; National Center for Health Statistics, CDC. Healthy People 2020 MICH-1.3; Maryland SHIP Obj. 2.

In 2011 the overall Infant Mortality Rate (IMR) for Frederick County was 3.6 per 1,000 live births. This rate is up from the previous year IMR of 3.2, but the overall rate since 2006 is trending slightly

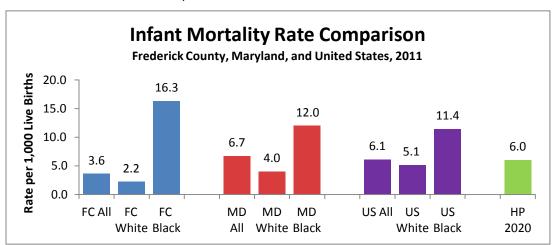
downward. The 2011 Frederick County IMR (3.6) is 46% less than the Maryland rate of 6.7. Both Frederick County and Maryland Infant mortality rates are showing a downward trend since 2006.

Since 2000, Frederick County has been able to meet the Healthy People 2020 goal for infant mortality, no more than 6.0 deaths per 1,000 live births, for all but three years. In 2011, Frederick County IMR (3.6) was 40% less than the goal rate. Frederick County is also meeting the SHIP target of less than 6.6 deaths per 1,000 live births.



Data Source: Maryland Vital Statistics Reports, Division of Health Statistics, Maryland DHMH; National Center for Health Statistics, CDC.

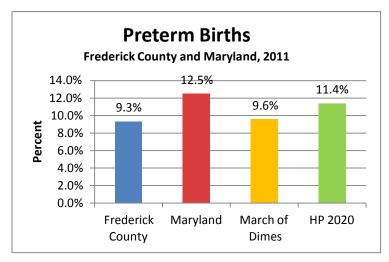
A factor contributing to the Infant Mortality Rate in Frederick County is racial disparity. In 2011, black infants in Frederick County had a mortality rate of 16.3, over seven times higher than white infants. It is worthy to note that when there are less than 5 deaths, the IMR is not reported since such rates are subject to instability. Aggregate analysis offers a better picture of the infant mortality disparity between whites and blacks in Frederick County. In comparing the infant mortality disparity aggregates of 2002-2006 with those of 2007-2011, there has been an 11.6 % downward trend.



Data Source: Maryland Vital Statistics Reports, Division of Health Statistics, Maryland DHMH; National Center for Health Statistics, CDC. Healthy People 2020, <a href="http://www.healthypeople.gov/2020/topicsobjectives2020/">http://www.healthypeople.gov/2020/topicsobjectives2020/</a>

#### **Preterm Birth**

Live births occurring between 20 and 36 weeks of gestation are categorized as preterm births. Premature birth costs society more than \$26 billion a year and takes a high toll on families. Babies born just a few weeks early are at risk of severe health problems and lifelong disabilities. Premature birth is the number 1 killer of newborns.



Data Source: March of Dimes at <a href="http://www.marchofdimes.com/peristats/pdflib/998/MD.pdf">http://www.marchofdimes.com/peristats/pdflib/998/MD.pdf</a> Healthy People 2020 MICH-9.1.

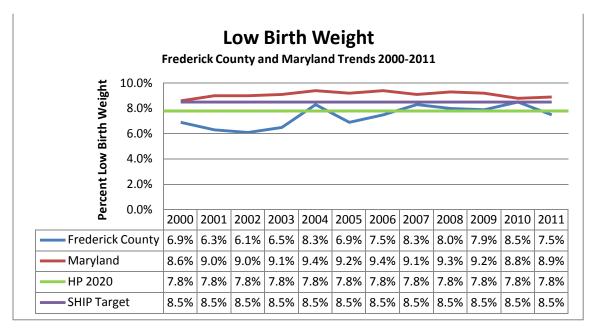
In 2011, 9.3% of live births in Frederick County were preterm, this is lower than Maryland which is at 12.5%.

The Healthy People 2020 goal for percentage of preterm births is 11.4%, Frederick County is currently below that goal at 9.3%. The March of Dimes 2020 goal for preterm birth is 9.6%. Frederick County also meets this standard by falling below that threshold.

Frederick County residents experiencing a high risk pregnancy are able to receive care at the Maryland Perinatal specialists when they are referred by their obstetricians.

#### **Low Birth Weight**

The social determinants that influence maternal health also affect pregnancy outcomes and infant health. Racial and ethnic disparities in infant mortality exist, particularly for African American infants. Child health status varies by both race and ethnicity, as well as by family income and related factors, including educational attainment among household members and health insurance coverage.

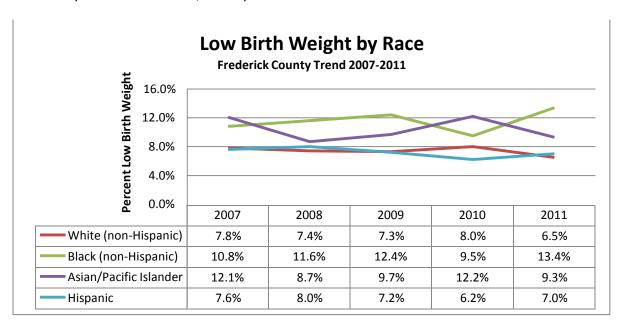


Data Source: Maryland Vital Statistics Reports, Division of Health Statistics, Maryland DHMH; National Center for Health Statistics, CDC. Healthy People 2020 MICH-8.1; Maryland SHIP Obj. 3.

In 2011, there were 207 low birth weight births in Frederick County (7.5%), which was a decrease from 8.5% in 2010. In 2006, the percent of low birth weight Infants was 7.5% since then the percentage had increased and has finally dropped back down to 7.5%, but is still not as low as it was in 2002.

Since 2006, trends show the percent of low birth weight infants in Maryland has slightly declined. Although Frederick County data shows no consistent trend through the years, low birth weight percentages are still lower than Maryland's. In 2011 Frederick County's percentage of low birth weight infants was 7.5% compared to Maryland's 8.9%.

The Healthy People 2020 goal is for no more than 7.8% of births to be classified as low birth weight. Frederick County met this goal in 2011 for the first time since 2006. Frederick County has also met the SHIP 2014 target of having newer than 8.5% of births to be classified as low birth weight in 2011.

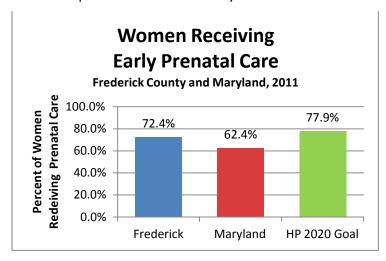


Data Source: Maryland Vital Statistics Reports, Division of Health Statistics, Maryland DHMH; National Center for Health Statistics, CDC.

Racial disparity is one of the factors contributing to the percentage of low birth weight infants in Frederick County, with Blacks and Asian/Pacific Islanders having an average of twice the percentage of low birth weights of Whites. The Frederick Memorial Prenatal Center, which opened in 2008, has opened the doors for prenatal care to uninsured, low income and Medicaid eligible women.

#### **Early Preterm Care**

Early entry into prenatal care is defined as prenatal care beginning in the 1<sup>st</sup> trimester of pregnancy. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and interconception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential.

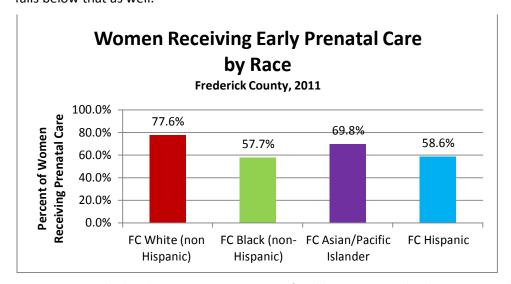


Data Source: Maryland Vital Statistics Reports, Division of Health Statistics, Maryland DHMH; National Center for Health Statistics, CDC. Healthy People 2020 MICH-10.1.

The early prenatal care data for 2010 were computed utilizing a different set of criteria due to changes in the inquiry fields on the Maryland birth certificate report form. Therefore the data for 2010 cannot be compared with data compiled for 2009 and before. The data for 2010 and 2011 show an increase in early prenatal care from 69.6% to 72.4%. Both of these however, fall below the Healthy People 2020 goal of 77.9%.

In 2011, early prenatal care during the first trimester of pregnancy was reported at 72.4% for Frederick County. This is ten percent higher than for Maryland (62.4%).

The Healthy People 2020 goal for early prenatal care is 77.9%. Currently Frederick County falls below that goal at 72.4%. The SHIP 2014 goal for early prenatal care is 84.2% and at 72.4%, Frederick County falls below that as well.

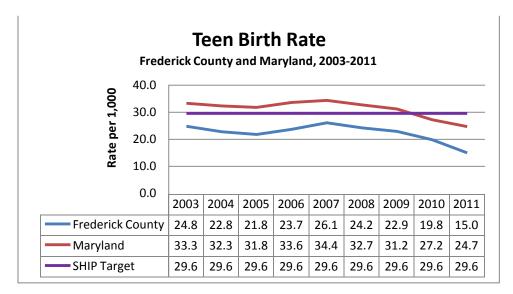


Data Source: Maryland Vital Statistics Reports, Division of Health Statistics, Maryland DHMH; National Center for Health Statistics, CDC.

Early prenatal care data shows some disparity between the racial and ethnic groups, with approximately 20% fewer Black Non-Hispanic and Hispanic women receiving early prenatal care than the White non-Hispanic women.

#### **Teen Birth Rate**

Teen pregnancy is linked to a host of social problems such as poverty, lack of overall child well-being, out-of-wedlock births, lack of responsible fatherhood, health issues, school failure, child abuse and neglect and at-risk behaviors.



Source: Maryland Department of Health and Mental Hygiene; Vital Statistics Administration: General Fertility Rates-And Birth Rates-By Age of Mother, Race of Mother, Region and Political Subdivision. Accessed 2/21/13. Maryland SHIP Obj. 5.

Definitions: Live births per 1,000 females aged 15-19.

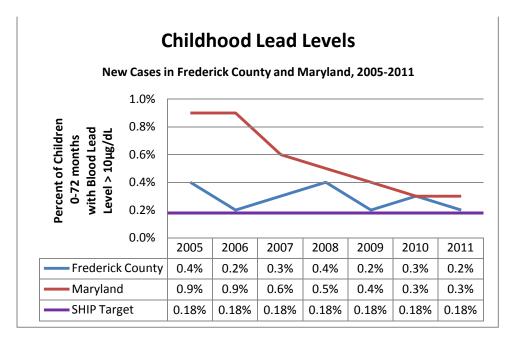
Since 2007, there has been a declining trend in teen birth rates (15-19) for Frederick County. In 2011 the teen birth rate for Frederick County was 15.0 per 1,000 females aged 15-19.

Both the state of Maryland and Frederick County has seen a downward trend in teen birth rates in recent years. Frederick County rates remain lower than Maryland. In 2011, the Maryland teen birth rate was 24.7 while Frederick County reported 15.0.

The Maryland SHIP target rate for teen birth per 1,000 is 29.6. In 2011, Frederick County met this goal with a teen birth rate of 15.0.

#### **Childhood Lead Levels**

Lead is one of the most significant and widespread environmental hazards for children in Maryland. Children are at greatest risk from birth to age six while their neurological systems are developing. Sustained exposure to lead can cause long lasting neurological damage or death. Effects of sustained exposure include learning disabilities, shortened attention span, irritability, and lowered IQ.



Data Source: MDE, Annual Report, Childhood Blood Lead Surveillance in Maryland 2005-2011. Maryland SHIP Obj. 13.

The percent of elevated blood lead levels greater than or equal to  $10~\mu g/dL$ , for children in Frederick County aged 0-72 months, has trended down slightly since 2005. Maryland has trended downward more sharply that Frederick County has. The Maryland percentage has continued to exceed the percentage of elevated blood lead levels in Frederick County. In 2011, the percentage for Maryland was 0.3% whereas the percentage for Frederick County was 0.2%.

The Maryland SHIP 2014 goal for percent of elevated blood lead level of children tested is 0.18%. Frederick County exceeds that threshold and has not currently met that goal.

The CDC has made blood lead levels between 5-9  $\mu g/dL$  the new level of concern. This would impact the follow up and case management of children with these levels. In 2011, Frederick County had 46 cases of children with a blood lead level between 5 and 9  $\mu g/dL$ . In the same time period there were only 12 cases of a blood lead level of 10  $\mu g/dL$  or higher. The 5-9 reference range had 288% more cases than did the range of 10 or higher. Frederick County is also noted as an at risk jurisdiction containing 19 targeted zip codes of elevated risk for lead poisoning.

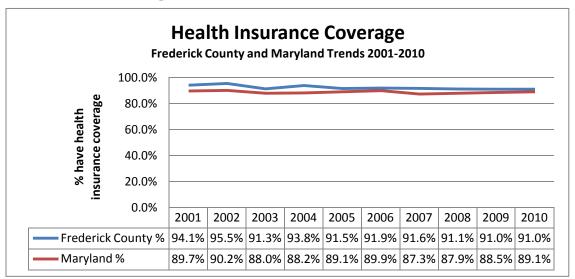
## ACCESS TO HEALTHCARE

#### Health Insurance

Access to medical insurance is a Healthy People 2020 Leading Health Indicator (LHI). According to Healthy People, LHI are "high-priority health issues" that help to address the health of the nation. Health Insurance is important for individuals to have access to preventable health services and treatment for chronic disease. Individuals who are uninsured have limited access to services to improve their health.

The FMH 2013 Community Health Needs Assessment reported on page 29 the type of insurance coverage of inpatient and outpatient cases in FY12.

## Health Insurance Coverage

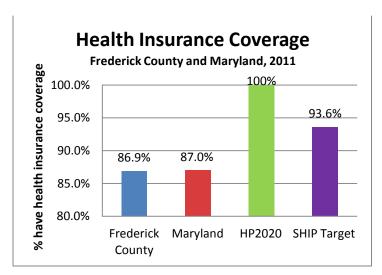


Source: BRFSS Data, Question: HEALTH CARE ACCESS: HAVE ANY KIND OF HEALTH INSURANCE COVERAGE?

Frederick County has seen a slight decrease in the percentage of insured adults from 2001 to 2010. The percentage of adults with insurance coverage was 94% in 2001 compared to 91% in 2010. Despite this decrease over the last ten years, Frederick County has done better than Maryland.

The factors that contribute to not all adults having health insurance coverage are lack of affordable health plans, employers not offering health insurance to workers, and adults not eligible for Medicaid due to income or immigration status.

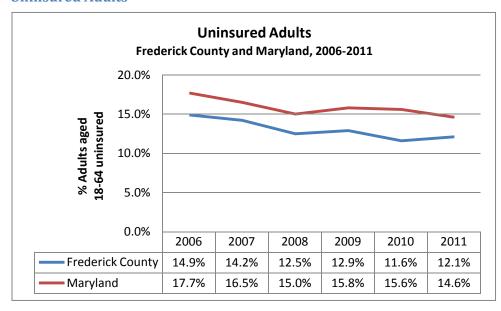
The percentage of adults with health insurance coverage should increase over the next few years due to the implementation of the Patient Protection and Affordable Care Act which mandates health insurance coverage with few exceptions, expanded Medicaid and tax credits to those income eligible to purchase health insurance in the state health exchanges.



Source: BRFSS Data, Question: HEALTH CARE ACCESS: HAVE ANY KIND OF HEALTH INSURANCE COVERAGE?; Healthy People 2020 AHS-1.1; Maryland SHIP Obj. 36.

The data source for health insurance coverage is from the Maryland Behavioral Risk Factor Survey (BRFSS) changed how it questioned survey respondents in 2011 so this data is listed separately and compared with Maryland, Healthy People 2020 (HP 2020), and Maryland State Health Improvement Plan (SHIP) data. In 2011, the percentage of adults with health insurance coverage was 86.9% for Frederick versus 87% for Maryland. The percentages were similar but do not meet the goals for Healthy People 2020 (100%) or SHIP (93.6%).

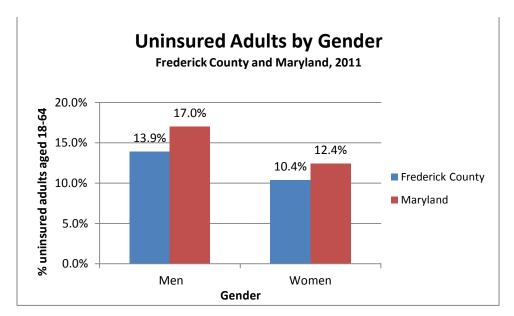
#### **Uninsured Adults**



Source: US Census, Small Area Health Insurance Estimates

The percentage of uninsured adults has decreased from 2006 to 2011 for both Frederick and Maryland. Frederick's percentage in 2011 was 12.1% compared to Maryland's percentage of 14.6%.

The possible reasons for the decline in the percentage of uninsured adults could be Maryland's expansion of Medicaid to low income families and childless adults ages 19-64, which went into effect on July 1, 2008.



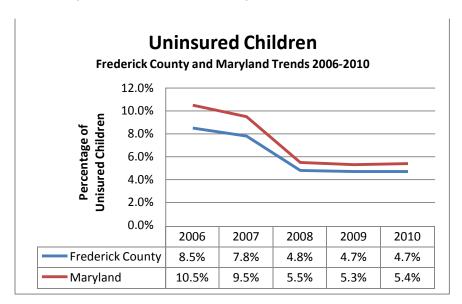
Source: US Census, Small Area Health Insurance Estimates

In 2011 the percentage of uninsured men aged 18-64 was higher compared to women in both Frederick County and Maryland.

#### **Uninsured Children**

The percentage of uninsured children in Maryland and Frederick County has decreased from 2006 to 2010 with the percent in Frederick dropping from 8.5% to 4.7%. The percentage of children uninsured in Frederick has been less than the percentage in Maryland over the past five years.

In 2010, 4.7 % of children were uninsured in Frederick County compared to 5.7 % in Maryland. The percentages represent 2848 children in Frederick County and 75,222 children in Maryland.



Source: Annie E Casey Kids Data Center, Advocates for Children and Youth

The reason for the decline in the percentage of uninsured children is due to many factors such as increased awareness of the Maryland Children's Health Insurance Program (MCHP) which provides free and low cost insurance to children through the State's Medical Assistance Program, Health Choice and the State of Maryland expanded eligibility for Medical Assistance to low income families.

There are still children who uninsured due to families not being able to afford health insurance coverage, parents are not aware their children qualify for State health insurance or immigration status of the children prohibits them from qualifying for insurance. <sup>1</sup>

<sup>-</sup>

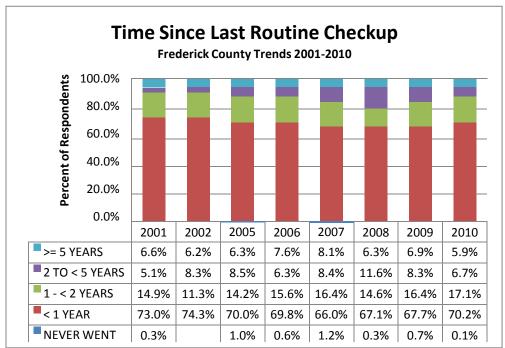
Foundation, Kaiser Family. (2009, January). *Medicaid and the Unisured. Next Steps in Covering Uninsured Children: Findings from the Kaiser Survey of Children's Health Coverage.* Retrieved July 5, 2013, from Kaiser Family Foundation: http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7844.pdf

## **Accessing Health Care Services**

According to Healthy People, "Access to health services means the timely use of personal health services to achieve the best health outcomes."

The FMH 2013 Community Health Needs Assessment reported on page 30 the number of emergency department visits used as primary care visits in FY12-FYTD13. That information was also reported by payor source and by the amount charged. The number of pediatric emergency department visits and the percent of visits by payor source was reported on page 31.

# **How Long since Last Check Up**



Source: BRFSS Data, Question: HEALTH CARE ACCESS: HOW LONG SINCE LAST VISITED A DOCTOR FOR A ROUTINE CHECKUP?

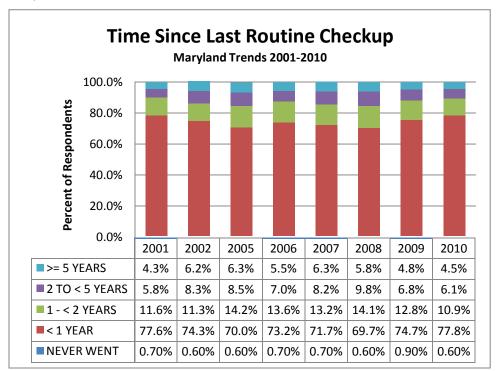
From 2001-2010, the percentage of Frederick County individuals who last visited their doctor for a routine checkup more than five years ago decreased by 11%. In Frederick County in the year 2001, the percentage of individuals who last visited their doctor for a routine checkup greater than or equal to five years was 6.6% compared to 5.9% in 2010.

The percentage of individuals who last visited their doctor for a routine checkup within two years and less than five years increased 31%. In 2001 the Frederick County percentage was 5.1% compared to 7.6% in 2010.

The trend in the percentage of individuals who last visited their doctor for a routine checkup one to less than two years ago decreased from 14.9% to 10.7%.

The percentage of individuals who last visited their doctor for a checkup less than one year decreased by 3.8%. In 2001, the percentage of individuals who last visited their doctor for a checkup less than one year was 73% compared to 70.2% in 2010.

From 2000- 2010, the percentage of individuals in Frederick County who never went to their checkup decreased by 66%. In 2001, the percentage of individuals who never went to their checkup was 0.3% compared to 1.8%.



Source: BRFSS Data, Question: HEALTH CARE ACCESS: HOW LONG SINCE LAST VISITED A DOCTOR FOR A ROUTINE CHECKUP?

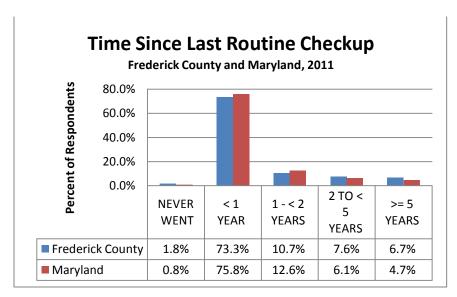
From 2000-2010, the percentage of individuals who last visited their doctor for a routine checkup greater than or equal to five years was lower in Maryland than in Frederick.

From 2001 and 2010, both Frederick County and Maryland had an increase in the trend in the percentage of individuals who last visited their doctor for a routine checkup within two years and less than five years.

From 2001 and 2010, Frederick County had an increase in the trend in the percentage of individuals who last visited their doctor for a routine checkup one to less than two years ago. Maryland's trend was that there was a decrease in the trend in the percentage of individuals who last visited their doctor for a routine checkup one to less than two years ago.

Between 2001 and 2010, Maryland had a higher percentage of individuals who last visited their doctor for a checkup less than one year than Frederick County.

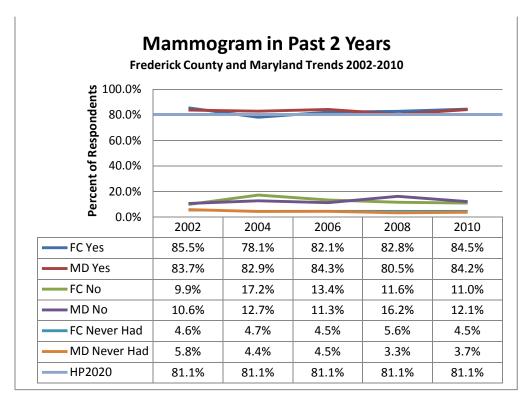
From 2000- 2010, Frederick County has had a lower percentage of individuals who never went to their checkup than Maryland.



Source: BRFSS Data, Question: HEALTH CARE ACCESS: HOW LONG SINCE LAST VISITED A DOCTOR FOR A ROUTINE CHECKUP?

In 2011, Frederick County had a higher percentage of individuals who last visited their doctor for a routine checkup greater than or equal to five years than Maryland. Frederick County had a higher percentage of individuals who last visited their doctor for a routine checkup within two years and less than five years than Maryland. Maryland had a higher percentage of individuals who last visited their doctor for a routine checkup one to less than two years ago. Maryland's percentage of individuals who visited their doctor less than a year ago was 75.8% compared to Frederick County percentage of 73.3%. Frederick County had a higher percentage of individuals who never went to their checkup than Maryland.

## **Breast Cancer Mammogram Screening**

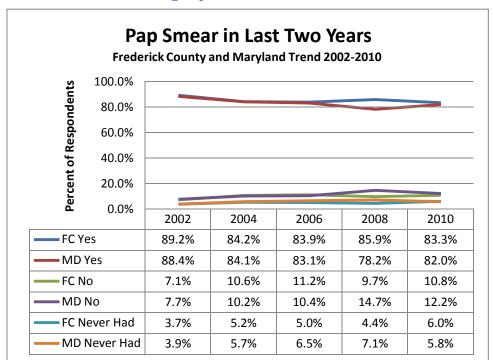


Source: BRFSS Data, Question: WOMENS HEALTH: HAD A MAMMOGRAM WITHIN PAST TWO YEARS? WOMEN AGE 50 AND OVER; Healthy People 2020 C-17.

In 2002, 83.7% of women in Maryland reported having a mammogram within the past two years compared to 85.5% of women in Frederick County. From 2004-2008, both Maryland and Frederick County saw decreases in these percentages. This was followed by an increase in 2010 where the percentage of women who reported having a mammogram within the past two years was 84.2% for Maryland and 84.5% for Frederick County.

Both Frederick County and Maryland exceed the Healthy People 2020 goal, which is to increase the proportion of women who receive a breast cancer screening, based on the most recent guidelines, to 81.1% or above.

## **Cervical Cancer Screening Pap**



Source: BRFSS Data, Question: WOMENS HEALTH: HAD A PAP SMEAR WITHIN PAST TWO YEARS? WOMEN 18+ WITH INTACT CERVIX

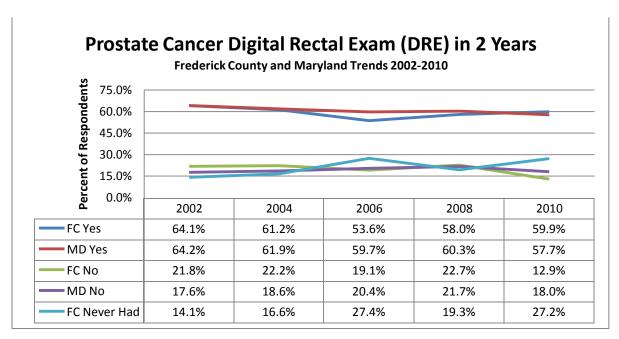
From 2002-2010, a greater percentage of women from Frederick County than Maryland have reported having a Pap smear within the past two years. In 2010, the percentage of women who reported having a Pap smear within the past two years was 83.3% in Frederick County and 82.0% in Maryland.

## **Prostate Screening Digital Rectal Exam**

## Public Health Evidence on Prostate Cancer Screening:

The evidence is insufficient to determine whether screening for prostate cancer with prostate specific antigen (PSA) of digital rectal exam (DRE) reduces mortality from prostate cancer. The USPSTF recommends against PSA-based screening for prostate cancer. Screening tests are able to detect prostate cancer at an early stage, but it is not clear whether this earlier detection and consequent earlier treatment leads to any change in the natural history and outcome of the disease. Observational evidence shows a trend toward lowered mortality for prostate cancer in some countries, but the relationship between these trends and intensity of screening is not clear, and associations with screening patterns are inconsistent. The observed trends may be due to screening or factors such as improved treatment. Based on solid evidence, screening with PSA and/or DRE detects some prostate cancers that would never have caused important clinical problems. Thus, screening leads to some degree of overtreatment. Based on solid evidence, current prostate cancer treatments, including radical prostatectomy and radiation therapy, result in permanent side effects in many men, including erectile dysfunction and urinary incontinence. The screening process itself can lead to adverse psychological effects in men who have a prostate biopsy but not prostate cancer; prostate biopsies are associated with complications.

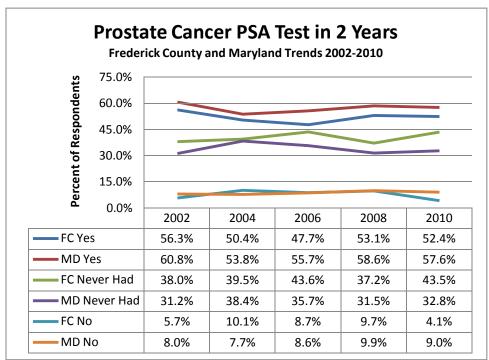
-NCI PDQ, 3/29/2012 and 6/8/2012, and USPSTF, 5/2012



Source: BRFSS Data, Question: PROSTATE CANCER: HAVE YOU HAD A DIGITAL RECTAL EXAM IN THE LAST 2 YEARS? MALES AGE 40+

From 2002-2008, the percentage of men 40 years of age or older who reported having a digital rectal exam (DRE) was higher in Maryland than Frederick County. In 2002, approximately 64% of men from Maryland and Frederick County reported having a DRE. In 2010, men who reported having a DRE dropped to 57.7% in Maryland and 59.9% in Frederick County.

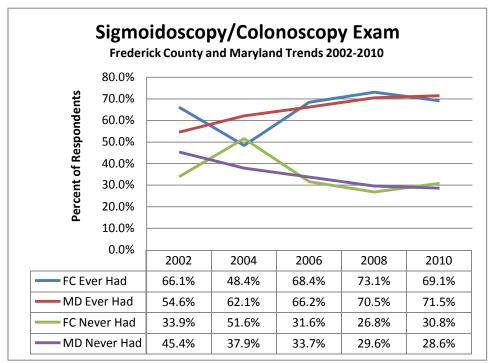
## **Prostate Screening PSA**



Source: BRFSS Data, Question: PROSTATE CANCER: HAVE YOU HAD A PSA TEST IN THE LAST 2 YEARS? MALES AGE 40+

From 2002 to 2010, a greater percentage of men 40 years of age or older reported having a prostate-specific antigen (PSA) test within the last 2 years in Maryland than Frederick County. In 2002, 56.3% of Frederick County men reported having a PSA test within the last 2 years. In 2010, approximately 58% of men in Maryland reported having a PSA test within the last 2 years compared to 52% in Frederick County.

# Sigmoidoscopy/ Colonoscopy Exam



Source: BRFSS Data, Question: COLORECTAL CANCER: HOW LONG HAS IT BEEN SINCE YOU HAD YOUR LAST SIGMOIDOSCOPY OR COLONOSCOPY EXAM? AGE 50+, INCLUDE: NEVER HAD EXAM; Healthy People 2020 C-16.

In 2002, 66.1% of Frederick County residents 50 years and older reported ever having a sigmoidoscopy/colonoscopy. This percentage dropped to 48.4% in 2004 but increased in 2006 and 2008. In 2010, 69.1% of Frederick County residents 50 years and older reported ever having a sigmoidoscopy/colonoscopy.

With the exception of 2004 and 2010, Maryland has had a lower percentage than Frederick County of individuals reporting ever having a sigmoidoscopy/colonoscopy. In 2010, residents 50 years and older reporting ever having a sigmoidoscopy/colonoscopy was 71.5% in Maryland and 69.1% in Frederick County.

### Oral Health

Oral health is essential to overall health. Good oral health improves a person's ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions.

-Healthy People 2020

The significant improvement in the oral health of Americans over the past 50 years is a public health success story. Most of the gains are a result of effective prevention and treatment efforts. One major success is community water fluoridation, which now benefits about 7 out of 10 Americans who get water through public water systems.

However, some Americans do not have access to preventive programs. People who have the least access to preventive services and dental treatment have greater rates of oral diseases. A person's ability to access oral health care is associated with factors such as education level, income, race, and ethnicity.

Objectives in this topic area address a number of areas for public health improvement, including the need to:

- Increase awareness of the importance of oral health to overall health and well-being.
- Increase acceptance and adoption of effective preventive interventions.
- Reduce disparities in access to effective preventive and dental treatment services.

Good self-care, such as brushing with fluoride toothpaste, daily flossing, and professional treatment, is key to good oral health. Health behaviors that can lead to poor oral health include:

- Tobacco use
- Excessive alcohol use
- Poor dietary choices

Barriers that can limit a person's use of preventive interventions and treatments include:

- Limited access to and availability of dental services
- Lack of awareness of the need for care
- Cost
- Fear of dental procedures

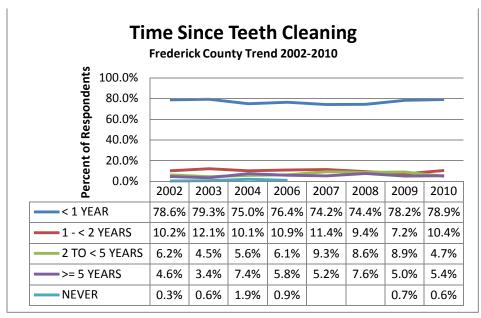
There are also social determinants that affect oral health. In general, people with lower levels of education and income, and people from specific racial/ethnic groups, have higher rates of disease. People with disabilities and other health conditions, like diabetes, are more likely to have poor oral health.

Community water fluoridation and school-based dental sealant programs are 2 leading evidence-based interventions to prevent tooth decay.

- Community water fluoridation is the most effective way to deliver the benefits of fluoride to a community. Studies show that it prevents tooth decay by 18 to 40 percent.
- School-based dental sealant programs, which focus on sealing permanent molar teeth, usually target schools that serve children from low-income families. Dental sealants can prevent up to 60 percent of tooth decay in the treated teeth.

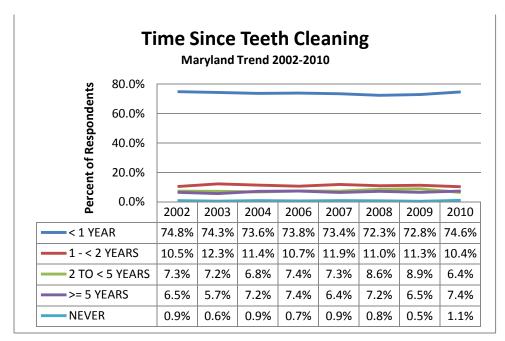
## **Teeth Cleaning**

It is important to monitor the percent of persons reporting having their teeth cleaned in the prior 12 months as it is an indicator of access to dental services and the potential for a delay in diagnosis of oral cancer, worsening of oral health diseases, and a missed opportunity for good oral health counseling. While awareness of the importance of at least an annual dental screening visit could be a contributing factor the timing of the fluctuation and national reports indicate that financial concerns may have been a more significant contributing factor.



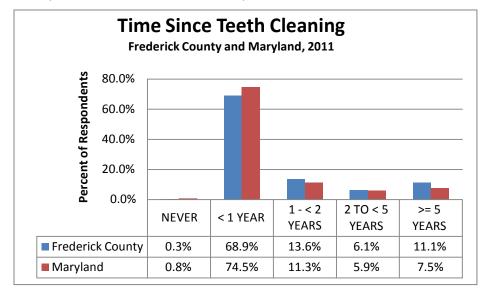
Source: BRFSS Data, Question: ORAL HEALTH: HOW LONG SINCE LAST TEETH CLEANING?

The percent of Frederick County residents reporting having had their teeth cleaned in the prior 12 months has been relatively stable between 2002 and 2010. In 2002, 78.6% of residents in reported having had their teeth cleaned in the prior 12 months which decreased to 74.2% in 2007 before increasing to 78.9% in 2010. The percent of Frederick County residents reporting that their last teeth cleaning was 5 or more years ago was at a low of 3.4% in 2003 before fluctuating up and down to 7.4% in 2004, 7.6% in 2008, and then 5.0% in 2009 and 5.4% in 2010. The percent reporting their last teeth cleaning was between 2 and 5 years ago in 2007 was almost double the percent in 2004. Since 2007 the percent reporting their last teeth cleaning was between 2 and 5 years has decreased to almost the lowest level in 10 years at the same time that the percent having their teeth cleaned in the prior 12 months increased and the percent having their teeth cleaned in the last 1 to 2 years increased.



Source: BRFSS Data, Question: ORAL HEALTH: HOW LONG SINCE LAST TEETH CLEANING?

A greater percentage of Frederick County residents report that they have never had their teeth cleaned than Maryland residents in 2011. A greater percent of Maryland residents reported having their teeth cleaned in the prior 12 months and also in the past 1 to 2 years than Frederick County residents in 2011. More Frederick County residents report their last teeth cleaning occurring more than 2 years ago compared to Maryland residents in 2011. The year to year changes from 2002 to 2010 for Frederick County have varied more than for Maryland, but overall the trends have been similar.

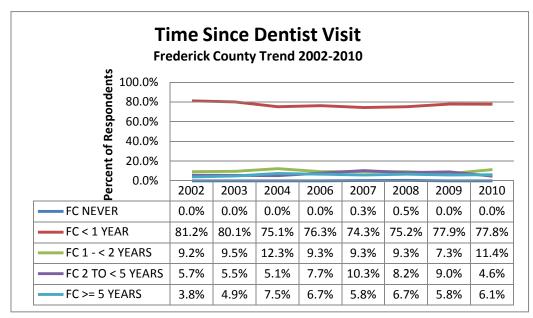


Source: BRFSS Data, Question: ORAL HEALTH: HOW LONG SINCE LAST TEETH CLEANING?

#### **Dental Visit**

The percent of Frederick County residents reported having seen a dentist within the past 12 months for any reason was as high as 81% in 2002 and then decreased to 74% in 2007 before rising back up to 78% in 2010. In the same time period, the percent of persons reporting that they last visited a dentist 5 or

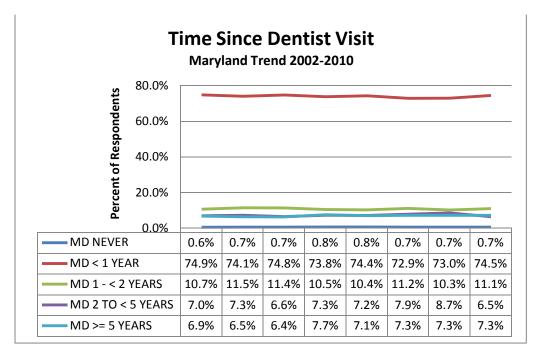
more years ago was at a low of 3.8% in 2002 and then increased to 7.5% on 2004 and then decreased to 6.1% in 2010. The percent reporting that they last visited a dentist 2-5 years ago has fluctuated from 5.7% in 2002 and then decreased to 5.1% in 2004 before increasing to 10.3% in 2007 and then dropping back to 4.6% in 2010.



Source: BRFSS Data, Question: ORAL HEALTH: HOW LONG SINCE LAST VISITED A DENTIST FOR ANY REASON?

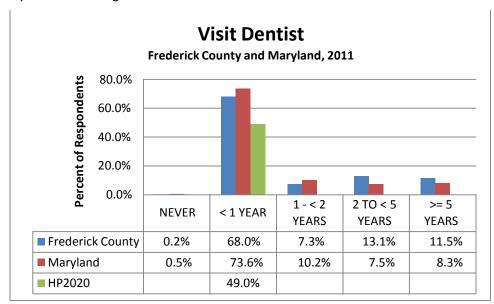
The percent of Frederick County residents reporting that they had seen a dentist in the prior 12 months for any reason has fluctuated much more than the percent of Maryland residents. The percent of Frederick County residents reporting that they had seen a dentist in the past 12 months was higher than the percent of Maryland residents reporting the same during the time period of 2002-2010 except for 2007 when the percent was almost the same.

The FMH 2013 Community Health Needs Assessment reported on page 14 and page 45 the number of childhood dental visits in 2009 and 2010 for children enrolled in Medicaid insurance. Frederick County exceeded the SHIP 2014 goal in 2009 and 2010.



Source: BRFSS Data, Question: ORAL HEALTH: HOW LONG SINCE LAST VISITED A DENTIST FOR ANY REASON?

In 2011 more Maryland residents reported having seen a dentist in the past 12 months and also in the past 1-2 years compared to Frederick County residents in contrast to the experience in prior survey years. In 2011 more Frederick County residents than Maryland residents reported last visiting a dentist 2 years or more ago.



Source: BRFSS Data, Question: ORAL HEALTH: HOW LONG SINCE LAST VISITED A DENTIST FOR ANY REASON?; Healthy People 2020 OH-7.

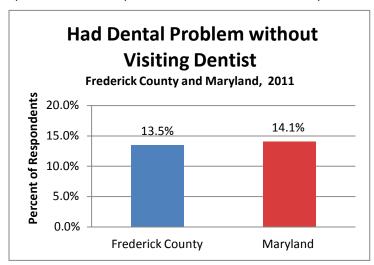
Frederick County residents exceed the low Healthy People 2020 goal of 49%. That national goal was established based upon a desire to increase the 2007 level reported nationally by 10%. If we were to apply the same target setting approach to Frederick County's performance, then we would be seeking to

increase the 2007 performance of 74% to 82% by 2020. The trend in Frederick County since 2007 suggested that we were steadily improving toward that target up to 2010. The methodology changed for calculating the data reported in 2011 and does not allow for a comparison to prior performance.

The difference between the percent reporting having visited a dentist (the previous indicator) and the percent reporting having received a screening within the last 12 months may be an indicator of persons going to the dentist for a problem rather than for a preventive visit. A smaller percent of Frederick County residents in 2011 reported that they last visited a dentist 2 to 5 years ago for a screening, than reported visiting the dentist suggesting that the reason why they went to the dentist was for a problem rather than for a preventive visit. The percent of persons who last visited a dentist 5 or more years ago for a screening or for any reason was similar so for people who have not seen a dentist for 5 or more years the reason that they last saw a dentist doesn't necessarily appear to be more for problems than for screening purposes.

#### Had a Dental Problem and Didn't Visit Dentist

This indicator is important because it indicates the significant gap that exists between people who are seeking dental services for a problem and receiving dental services due to financial barriers. While there are several dental safety net programs available in Frederick County, the experience of the persons administering those programs is that the demand for services far exceeds the available resources. For optimal oral health persons would visit a dentist for preventive reasons, not just when a problem arises.



Source: BRFSS Data, Question: ORAL HEALTH COST: DURING THE LAST 12 MONTHS, HAVE YOU HAD A DENTAL PROBLEM WHICH YOU WOULD HAVE LIKED TO SEE A DENTIST ABOUT BUT YOU DID NOT SEE THE DENTIST?

No Frederick County data is available for this indicator prior to 2011. The percent of Frederick County residents reporting that in the past 12 months they had a dental problem but did not visit the dentist because of cost was 13.5%.

Approximately the same percent of Frederick County and Maryland residents reported that in the past 12 months they had a dental problem but did not visit the dentist because of cost.

In Frederick County several options exist for persons with low incomes who are in need of emergency dental services, but the funding available to support those services does not cover the demand for emergency services and has fewer resources to support screening and preventive services.

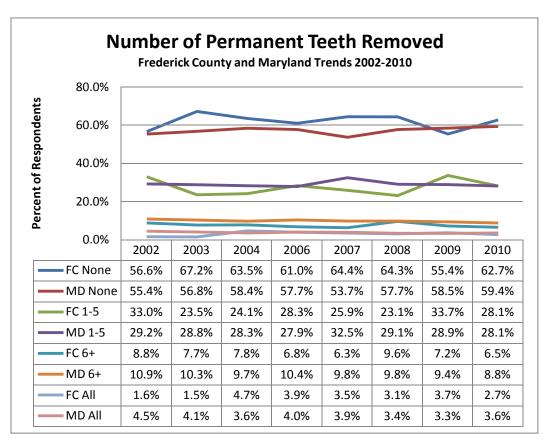
In comparison with other Oral Health Indicators, the percent of Frederick County residents reporting that they did not see a dentist for a problem in the past 12 months may represent a high percent of persons who have not visited a dentist for any reason in the past 12 months.

The FMH 2013 Community Health Assessment reported on pages 32 and 33 reported the number of inpatient and outpatient dental cases for the period FY11-FY13 YTD.

#### **Number of Permanent Teeth Removed**

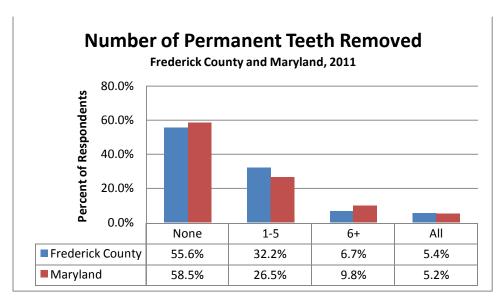
For persons experiencing an oral health problem, often the least costly approach to take care of the problem is to remove a tooth. When all of one's permanent teeth are removed one may have an impaired ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions to show feelings and emotions.

-Healthy People 2020



Source: BRFSS Data, Question: ORAL HEALTH: NUMBER OF PERMANENT TEETH REMOVED

The percent of Frederick County residents reporting that they have had no permanent teeth removed has gone up and down with no clear trend between 2002 and 2010 from a low of 55% in 2009 to a high of 67% in 2003. The percent of Frederick County residents reporting that they had all permanent teeth removed has also gone up and down between 2002 and 2010 with no clear trend from a low of 1.5% in 2003 to a high of 4.7% in 2004.



Source: BRFSS Data, Question: ORAL HEALTH: NUMBER OF PERMANENT TEETH REMOVED

In 2011 a smaller percentage of Frederick County residents reported having no permanent teeth removed compared to Maryland residents, although in all but one of the prior 9 years more Frederick County residents reported having no permanent teeth removed compared to Maryland residents. Slightly more Frederick County residents reported having all of their teeth removed than Maryland residents in 2011 although in all but 2 of the prior 9 years a smaller percent of Frederick County residents reported having all of their permanent teeth removed compared to Maryland residents.

There are no Healthy People 2020 goals or SHIP goals that exactly match this indicator. The Healthy People 2020 established a target of 68.8 percent or less of adults aged 45 to 64 years who ever had a permanent tooth extracted because of dental caries or periodontal disease and 21.6 percent or less of adults aged 65 to 74 years who have lost all of their natural teeth.

# **Appendix 1. Frederick County CHA Summary Table**

SOCIAL DETERMINANTS OF HEALTH			Is Frederic GOALS?	ck County I √=Yes	Meeting th ×=No	ese
Indicator	County Data	MD Data	HP 2020	Meet HP 2020	SHIP	Meet SHIP
Economic Stability						
% <u>Poverty</u> (2007-2011)	5.4	9				
% Children in Poverty (2011)	8.8	14				
% Employed (2011)	67	62				
% Unemployment (2013)	6	7				
Homelessness (2013, Number of Adults)	275	8,205				
Homeless Children (2010- 2011, Number of Children)	568	14,136				
<u>Education</u>						
% <u>Kindergarten Readiness</u> (2012- 2013)	79	74			↑ 85	×
% <u>High School Graduation</u> (2013)	92.8	83.6	↑ 82.4	<b>√</b>	<b>↑</b> 84.7	<b>√</b>
% Some College Education (2013)	66.1	63.0				
Neighborhood and Built Environm	<u>ent</u>	<u> </u>				
% Students Receiving Free and Reduced School Meals (2012)	24	43				
Participation in Supplemental Nutrition Assistance Program (2012, Number of Households)	8,407	365,565				
Daily Consumption of Fruits and V	/egetables (2	010)				
% < 1 or Never	5.2	4.1				
% 1 < 3 Times	28.9	32.9				
% 3 < 5 Times	30.4	35.8				
% ≥ 5 Times	35.5	27.1				
% <u>Inadequate Social Support</u> (2013)	15	20				
% <u>Single-Parent Households</u> (2013)	21	33				

			Is Frederic	ck County I	Meeting th	ese
			GOALS?	√=Yes	×=No	
Indicator	County	MD Data	HP 2020	Meet	SHIP	Meet
	Data			HP		SHIP
				2020		
Injury and Violence						
Unintentional Injury (2009,	58	1,780				
Number of Injury- Related						
Deaths)						
Child Abuse Rate (2011, per	5.9	5.3	<b>↓</b> 8.5	$\checkmark$	<b>↓</b> 4.8	×
1,000)						
Violent Crime Rate (2013, per	335	588				
100,000)						
Juvenile Arrests (2011, per	466	578				
10,000)						

DEATH				GOALS				
Indicator	County Data	MD Data	HP 2020	Meet HP 2020	SHIP	Meet SHIP		
Age-Adjusted Death Rates for All Causes (2009-2011, per 100,000)	663.7	732.5						
Age-Adjusted Death Rates for Lea 2011, per 100,000)								
Heart Disease	162.8	181.6						
Cerebrovascular Disease	37.7	38.7						
Chronic Lower Respiratory Disease	37.5	35.3						
Diabetes Mellitus	12.2	20.4						
Accidents	23.1	24.7						
Influenza and Pneumonia	22.5	16.6						
Alzheimer's Disease	16	16.1						
Assault/ Homicide	3.3	7.7						
HIV	***	4.9						
Intentional Self- Harm/ Suicide (2012, per 100,000)	10.1	8.9	<b>↓</b> 10.2	×	<b>↓</b> 9.1	×		
<u>Child Mortality</u> (2011, per 100,000)	12	8.7						
<u>Teen Mortality</u> (2011, per 100,000)	36	51						

<sup>\*\*\*</sup>Age-adjusted death rates not calculated for jurisdictions or regions with fewer than 20 deaths per category

CHRONIC DISEASE			Is Frederick County Meeting these					
			GOALS?	√=Yes	×=No			
Indicator	County	MD	HP 2020	Meet HP	SHIP	Meet		
Cardiovascular Disease	Data	Data		2020		SHIP		
<u>Cardiovascular Disease</u>								
% Heart Attack(2011)	2.2	4.2						
% <u>Stroke</u> (2011)	2.0	2.6						
% Cardio Angina(2011)	2.6	4.0						
<u>Cardiovascular Risk Factors</u>								
% High Blood Cholesterol (2011)	35.3	35.4	<b>↓</b> 13.5	×				
How Long Since Checked Blood	96.0	96.7	↑ 82.1	<b>√</b>				
Cholesterol % < 5 Years (2011)								
% Hypertension(2011)	22.6	32	<b>↓</b> 26.9	✓				
Dr. Advised Actions to Control High Blo	od Pressur	<u>e</u>						
% Dr. Advised to Take Medication for HBP (2011)	94.8	87.8						
% Dr. Advised to Exercise to Control HBP (2011)	87.2	75						
% Dr. Advised to Cut Down on Salt to Control HBP (2011)	73.2	70						
% Dr. Advised to Change Eating Habits to Control HBP (2011)	71.1	63.3						
% Dr. Advised to Reduce Alcohol Use to Control HBP (2011)	31.9	28.3						
Actions Taken to Control High Blood Pro	<u>essure</u>							
% Changing Eating Habits to Control HBP (2011)	79.1	74.1						
% Cutting Down on Salt to Control HBP (2011)	77.9	74.9						
% Exercising to Control HBP (2011)	63.2	63.2						
% Reducing Alcohol Use to Control HBP (2011)	40.2	33.6						
% <u>Taking Medication for HBP</u> (2011)	89.3	80.8	<b>↑</b> 69.5	<b>√</b>				
<u>Diabetes</u>	<u> </u>			<u> </u>				
% Ever Had Diabetes (2011)	9.4	9.6						
% <u>Diabetes Pregnancy</u> (2011)	2.0	1.2						
<u>Diabetes Emergency Department</u> <u>Visits</u> (2011, per 100,000)	227.7	314.6			<b>↓</b> 300.2	<b>√</b>		
% Medicare Diabetes pts with Annual Hemoglobin A1c Tests (2010)	85.4	83.7						
Kidney Disease (% 2011)	1.6	1.9						

			Is Frederick County Meeting these				
			GOALS?	√=Yes	×=No		
Indicator	County	MD Data	HP 2020	Meet	SHIP	Meet	
	Data			HP 2020		SHIP	
Arthritis (% 2011)	20.9	23.3					
% Arthritis Affect Work (2011)	26.7	31.6					
<b>Disability and Secondary Condition</b>	<u>15</u>						
% Activities Limited due to	19.6	21					
Disability (2011)							
% Health Problems Requiring	5.5	7.1					
Special Equipment (2011)							
% Cognitive Impairment (2011)	13.5	8.4					
Respiratory Diseases							
% <u>COPD</u> (2011)	7.1	5.9					
% Adult Asthma (2011)	13	13.8					
% Never Had Asthma (2011)	88	86.3					
% Childhood Asthma (2010)	13	12.6					
% Child Never Had Asthma	87	87.6					
(2011)							

CANCER			GOALS				
Indicator	County Data	MD Data	HP 2020	Meet HP 2020	SHIP	Meet SHIP	
Cancer Mortality Rates (per 100,00	00)						
All Cancer (2009)	179.6	177.7	<b>↓</b> 160.6	×	<b>↓</b> 169.2	×	
Lung/Bronchus Cancer (2005-2009)	51.2	51.1	<b>↓</b> 45.5	×			
Colorectal Cancer (2005-2009)	17.1	17.5	<b>↓</b> 14.5	×			
Breast Cancer (2005-2009)	23.3	24.7	<b>↓</b> 20.6	×			
Prostate Cancer (2005-2009)	21.0	25.5	<b>↓</b> 21.2	✓			
<u>Oral Cancer</u> (2002-2006)	1.8	2.7	<b>↓</b> 2.3	✓			
Melanoma (2005-2009)	3.6	2.7	<b>↓</b> 2.4	×			
Cervical Cancer (2002-2006)	3.2	2.2	<b>↓</b> 2.2	×			
Cancer Incidence Rates (per 100,0	00)						
All Cancer (2009)	463.0	443.7					
Lung/ Bronchus Cancer (2005-2009)	67.5	63.3					
Colorectal Cancer (2005-2009)	50.8	41.9					
Breast Cancer (2005-2009)	127.7	123					
Prostate Cancer (2005-2009)	141.4	155.1					
<u>Oral Cancer</u> (2005-2009)	9.9	9.5					
Melanoma (2005-2009)	20.8	24.3					
Cervical Cancer (2005-2009)	8.4	6.9					

INFECTIOUS DISEASE			Is Frederick County Meeting these				
			GOALS?	√=Yes	×=No		
Indicator	County	MD Data	HP 2020	Meet	SHIP	Meet	
	Data			HP 2020		SHIP	
<u>Immunizations</u>							
% Influenza Vaccination (2011)	39.6	41	↑ 80	×			
Where got Last Seasonal Flu Vacci	ine (2011)						
% Doctors Office or HMO	35.5	40.7					
% Workplace	26.1	20.7					
% Store- Supermarket, Drug Store	19.1	16.4					
% Another Type of Clinic-	8.7	7.3					
Community Health Center							
% Hospital- in- Patient	5.9	6.7					
% Health Department	2.4	3.6					
% Senior Recreation or Community Center	0.8	1.4					
% School	0.8	1.3					
% Some Other Place	0.6	1.8					
% Emergency Room		0.1					
% Pneumonia Vaccination (2011)	27.3	30.4	<b>↑</b> 27.3	<b>√</b>			
% Shingles Vaccination (2011)	4.1	9.2					
% Recent Tetanus Shot was	39.5	28.8					
Pertussis or Whooping Cough							
Vaccine (2011)							
Child Immunizations							
% Students Grades 1-12	99.9	99.7					
Completely Immunized (2012-							
2013)	FC 7	F7.0	<b>A</b> 00	· · ·			
% Child Human Parillamenima	56.7	57.6	↑ 80	×			
% Child Human Papillomavirus Vaccination (HPV) (2011)	20.1	20.5					
% Child DTaP Vaccination	100	99.3	<b>↑</b> 95	<b>√</b>			
(2010- 2011)	100	33.3		,			
% Child Polio Vaccination	100	99.5	<b>↑</b> 95	<b>√</b>			
(2010- 2011)							
% Child MMR Vaccination	100	99	<b>↑</b> 95	<b>√</b>			
(2010- 2011)							
% Child Hepatitis B Vaccination	100	99.4	<b>↑</b> 95	<b>√</b>			
(2010- 2011)  % Child Varicella Vaccination	100	99.5	<b>↑</b> 95	/			
(2010- 2011)		33.3	' ' ' '	,			

			Is Frederick County Meeting these				
			GOALS?	√=Yes	×=No		
Indicator	County	MD Data	HP 2020	Meet	SHIP	Meet	
	Data			HP 2020		SHIP	
<u>Tuberculosis</u> (2011, per 100,000)	2.1	4	<b>↓</b> 1	×			
HIV (2009-2010, per 100,000)	7.8	31.9					
% HIV Testing (2011)	41.1	46.9	<b>↑</b> 18.9	$\checkmark$			
Sexually Transmitted Disease							
Gonorrhea (2011, per 100,000)	27.1	110.8					
<u>Chlamydia</u> (2011, per 100,000)	221	466.9			<b>4</b> 431	<b>√</b>	
<u>Syphilis</u> (2011, per 100,000)	1.3	7.8					

BEHAVIORAL HEALTH			GOALS				
Indicator	County	MD Data	HP 2020	Meet	SHIP	Meet	
maleator	Data	IVID Data	111 2020	HP 2020	31111	SHIP	
Mental Health							
% Anxiety (2009)	11	12.4					
% Depression (2011)	13.5	13.6					
Days Mental Health Status Not	Good (2011)						
% None	69.6	67.5					
% 1-2 Days	8.1	8.3					
% 3-7 Days	9.8	9.3					
% 8-29 Days	7.9	9.4					
% 30 Days	4.7	5.5					
Substance Abuse							
% Binge Drinking (2011)	17.7	18	<b>↓</b> 24.4	<b>√</b>			
% Alcohol Chronic Drinking (2011)	5.7	6.2					
% Drinking and Driving (2010)	1.2	1.5					
Tobacco Use (2011)		1					
% Never Smoked	59.3	58.3					
% Former Smoker	23.5	22.6					
% Smoker - Some Days	5.9	5.4					
% Everyday Smoker	11.3	13.7					
% Current Smoker (Some days + Every day)	17.2	19.1	<b>↓</b> 12	×	<b>↓</b> 14.4	×	
% <u>Tried to Quit Tobacco Use</u> (2011)	41.1	56.9					
% Aware of Telephone Services to Help Quit Smoking (2011)	25.8	23.4					

			Is Frederi	ck County	Meeting th	nese
			GOALS?	√=Yes	×=No	
Indicator	County	MD Data	HP 2020	Meet	SHIP	Meet
	Data			HP 2020		SHIP
How Long since Last Smoked Cig	arettes Regul	arly (2011)				
% Never a Regular Smoker	0.2	0.2				
% <1 Year	10.3	10.9				
% 1 < 5 Years	24.7	16.7				
% 5 < 10 Years	9	9.9				
% ≥ 10 Years	55.8	62.3				
How Often use Chewing Tobacco	<mark>, Snuff or Sn</mark> ı	<u>us</u> (2011)				
% Not at All	98	97.9				
% Some Days	0.9	1.3				
% Everyday	1.1	0.9				
% Tobacco Use High School	22.6	24.8	<b>↓</b> 21.0	×	<b>↓</b> 22.3	×
(2010)						
% Cigarette Smoking High	14.0	14.1	<b>1</b> 6.0	$\checkmark$		
<u>School</u> (2010)						
% Tobacco Use Middle/High	15.0	17.1				
<u>School</u> (2010)						
Overdose Death Rate (2012)	10.4	12.9				
Overdose Death Rates by Substance (2012)						
Heroin Death Rate	6.7	6.4				
Prescrip. Opioid Death Rate	4.2	5.0				
Alcohol Death Rate	2.1	3.1				

PHYSICAL HEALTH STATUS			GOALS				
Indicator	County Data	MD Data	HP 2020	Meet HP 2020	SHIP	Meet SHIP	
Physical Activity		•			1	•	
% Adults with No Leisure Time Physical Activity (2011)	24.2	26.2	<b>↓</b> 32.6%	<b>✓</b>			
% Adults Moderate or Vigorous Physical Activity per Week (2011)	50.5	48.7	<b>1</b> 47.9%	<b>√</b>			
% Adults Doing Muscle Strengthening (2011)	24.7	30.2	<b>↑</b> 24.1%	<b>√</b>			
% Adults 75/150 min Aerobic and Strengthening (2011)	15.7	19.8	<b>↑</b> 20.1%	×			
% Middle/High School Students Physically Active 60 min/day (2010)	21.3 – M 10.5 – F	20.3 – M 10.1 – F					

			Is Frederi GOALS?	ck County √=Yes	Meeting th	iese
Indicator	County	MD	HP 2020	Meet	SHIP	Meet
	Data	Data		HP 2020		SHIP
Self- Reported Health Status						
% General Health Status (2011)						_
% Excellent	19.2	21.9				
% Very Good	39.1	33.9				
% Good	30.4	30.1				
% Fair	9.2	11.1				
% Poor	2.1	3.1				
Days Physical Health Not Good (2011	)					•
% None	64.4	68				
% 1-2 Days	14.1	10.7				
% 3-7 Days	12.3	9.6				
% 8-29 Days	5.1	6.3				
% 30 Days	4	5.3				
Days Health Status Affecting Activity	Level (2011	)				
% None	80.4	79.5				
% 1-2 Days	9.6	6				
% 3-7 Days	3.5	5.7				
% 8-29 Days	4.4	5.4				
% 30 Days	2.1	3.4				
<u>Obesity</u>						
Weight Classification (2011)						
% Not Overweight	41	35.6	<b>↑</b> 33.9%	$\checkmark$		
% Overweight	33.5	36.1				
% Obese	25.5	28.3	<b>↓</b> 30.5	✓		
% Obese Children (2010)	9.2	11.6	<b>↓</b> 16.1	✓	<b>↓</b> 11.3	<b>√</b>
% Overweight Children (2010)	13.9	16				

MATERNAL, INFANT, CHILD HEALTH			GOALS				
Indicator	County Data	MD Data	HP 2020	Meet HP 2020	SHIP	Meet SHIP	
Infant Mortality (2011, per 1,000)	3.6	6.7	<b>↓</b> 6	✓	<b>↓</b> 6.6	✓	
% Preterm Birth (2011)	9.3	12.5	<b>↓</b> 11.4	✓			
% Low Birth Weight (2011)	7.5	8.9	<b>↓</b> 7.8	✓	<b>↓</b> 8.5	<b>√</b>	
% Early Preterm Care (2011)	72.4	62.4	<b>↑</b> 77.9	×			
<u>Teen Birth Rate</u> (2011, per 100,000)	15	24.7			<b>↓</b> 29.6	✓	
% Childhood Lead Levels (2011)	0.2	0.3			<b>↓</b> 0.18	×	

ACCESS TO HEALTHCARE			Is Frederick County Meeting these GOALS? ✓=Yes ×=No				
Indicator	County	MD	HP 2020	Meet	SHIP	Meet	
	Data	Data		HP 2020		SHIP	
Health Insurance							
% Health Insurance Coverage (2011)	86.9	87	↑ 100	×	<b>↑</b> 93.6%	×	
% Uninsured Adults (2011)	12.1	14.6					
% <u>Uninsured Children</u> (2010)	4.7	5.4					
Accessing Health Care Services	•						
How Long since Last Check Up (2011)							
% Never Went	1.8	0.8					
% < 1 Year	73.3	75.8					
% 1-2 Years	10.7	12.6					
% 2-5 Years	7.6	6.1					
% ≥ 5 Years	6.7	4.7					
% Breast Cancer Mammogram Screening (2010)	84.5	84.2	↑ 81.1	<b>√</b>			
% Cervical Cancer Screening Pap (2010)	83.3	82					
% Prostate Screening DRE (2010)	59.9	57.7					
% Prostate Screening PSA (2010)	52.4	57.6					
Sigmoidoscopy/ Colonoscopy Exam (2010	)					•	
% Never Had	30.8	28.6					
% Ever Had	69.1	71.5					
Oral Health							
Teeth cleaning (2011)							
% Never	0.3	0.8					
% < 1 Year	68.9	74.5					
% 1- 2 Years	13.6	11.3					
% 2- 5 Years	6.1	5.9					
%≥5 Years	11.1	7.5					
Dental Visit (2011)	•	•					
% Never	0.2	0.5					
% <1 Year	68	73.6	<b>1</b> 49	<b>√</b>			
% 1 < 2 Years	7.3	10.2					
% 2 < 5 Years	13.1	7.5					
% ≥ 5 Years	11.5	8.3					

# Frederick County Health Department Community Health Assessment, January 2014

			Is Frederick County Meeting these				
			GOALS?	√=Yes	×=No		
Indicator	County	MD	HP 2020	Meet	SHIP	Meet	
	Data	Data		HP 2020		SHIP	
% Had a Dental Problem and Didn't Visit	13.5	14.1					
Dentist (2011)							
Number of Permanent Teeth Removed (2011)							
% None	55.6	58.5					
% 1- 5 Teeth	32.2	26.5					
% ≥ 6 Teeth but not All	6.7	9.8					
% All Teeth	5.4	5.2					